WM-FX433/FX435

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

SONY
WALKMAN FM/AM
PRESET

Photo : FX435

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MF-WMFX433-114

SPECIFICATIONS

Radio FM: 87.5 – 108 MHz (0.1 MHz step)
(US, Canadian model)
87.5 – 108 MHz (0.05 MHz step)
(AEP, UK, Italian, Saudi Arabia model)
65 – 74 MHz, 87.5 – 108 MHz (0.05 MHz step)
(East European model)
AM: 530 – 1,710 kHz (10 kHz step)
(US, Canadian model)
531 – 1,602 kHz (9 kHz step)
(EXCEPT US, Canadian model)
TV: 2 – 13 channel
(US model)

Power requirements
- 3 V DC batteries R6 (AA) x 2
- External DC 3 V power sources

Battery life (approximate hours)

Sony Alkaline AM3 (N)	Sony SUM-3 (NS)
18 hrs. (playback) 25 (30) hrs. (radio)	8.5 hrs. (playback) 12 (15) hrs. (radio)

No mark : US model
(   ) : EXCEPT US model

Dimensions
112.8 x 86.6x 32.7 mm (4½ x 3½ x 1$\frac{5}{16}$ in.) (W/h/d)
incl. projecting parts

Mass 210 g (7.5 oz) incl. batteries

Supplied accessories
- Stereo headphones (1)
- Belt clip (1)

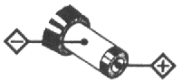
Optional accessories
- AC power adaptor AC-E30HG
- Car battery cord DCC-E130L

Your dealer may not handle some of the optional accessories listed above.
Please ask the dealer for detailed information.

Design and specifications are subject to change without notice.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ꓷD are trademarks of Dolby Laboratories Licensing Corporation.

Note
Use only the recommended AC-E30HG AC power adaptor (not supplied). Do not use any other AC power adaptor.



Polarity of the plug

MICROFILM

RADIO CASSETTE PLAYER

SONY®

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

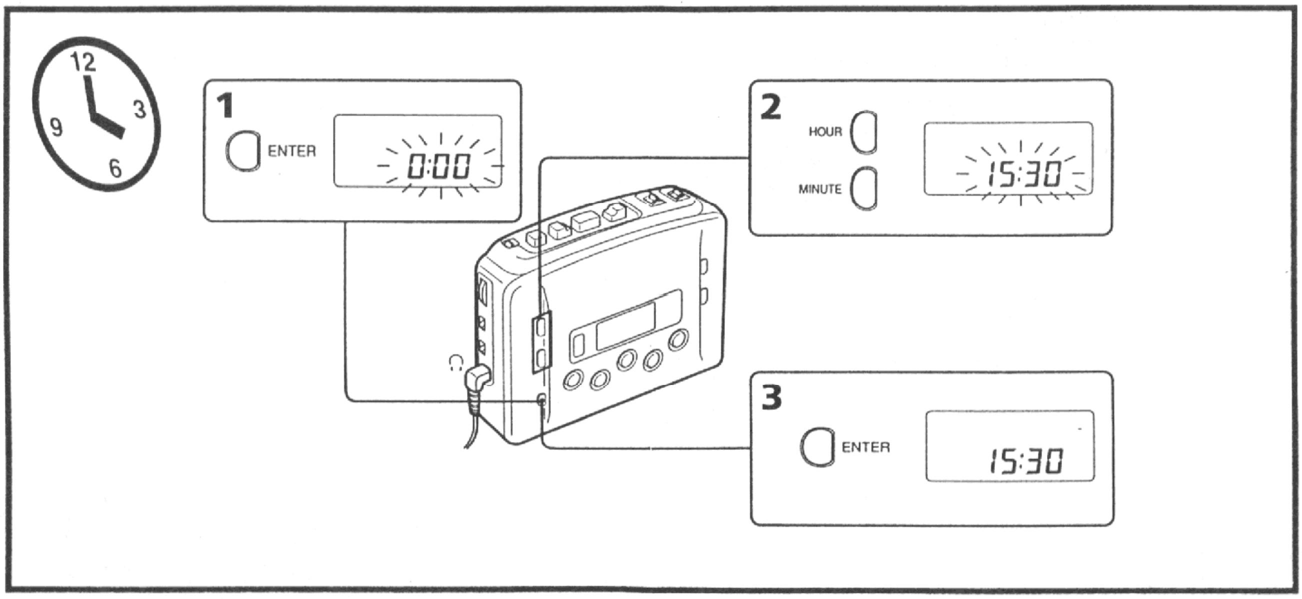
Flexible Circuit Board Repairing

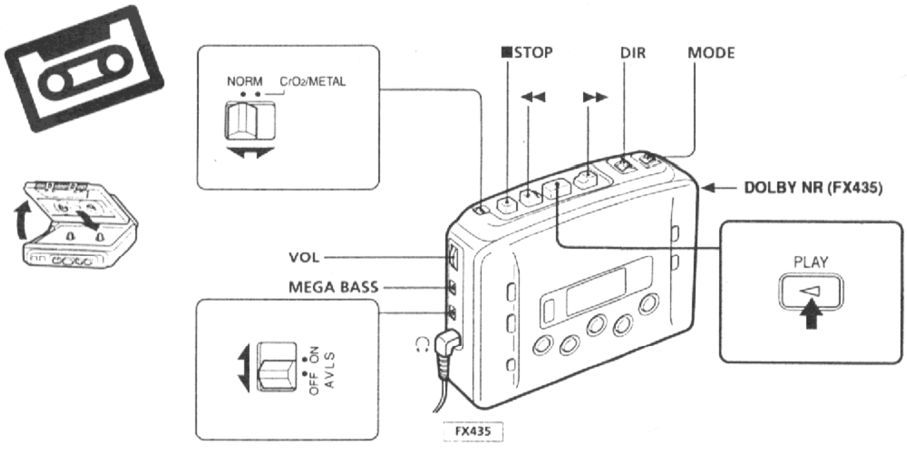
- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor ofthe circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SECTION 1

GENERAL

This section is extracted from instruction manual.




NORM CrO2/METAL
■STOP
DIR
MODE
◄◄
►►
DOLBY NR (FX435)
VOL
MEGA BASS
PLAY
OFF ON
AVLS
FX435

◄◄ ►►
Wind rapidly.

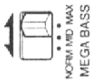
■ STOP
Stop.

DIR
Change sides.

MODE
Play both sides once ⊃/repeatedly ⊂⊃.

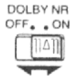
MEGA BASS

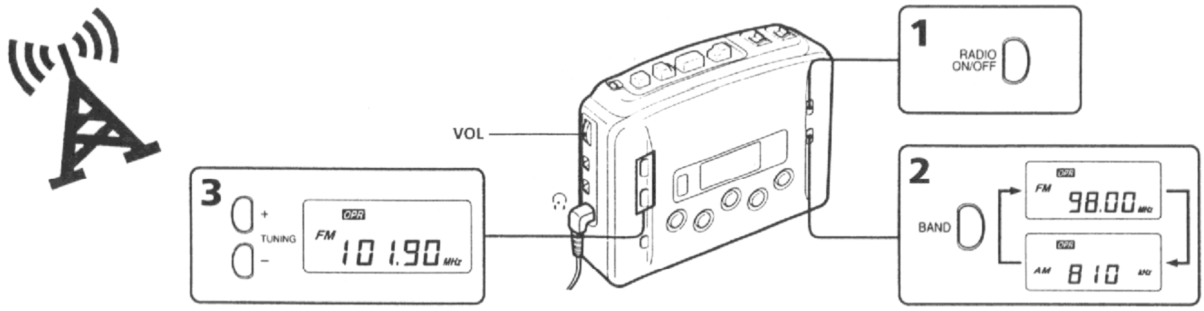
For deep and powerful sound.


NORM MID MAX
MEGA BASS

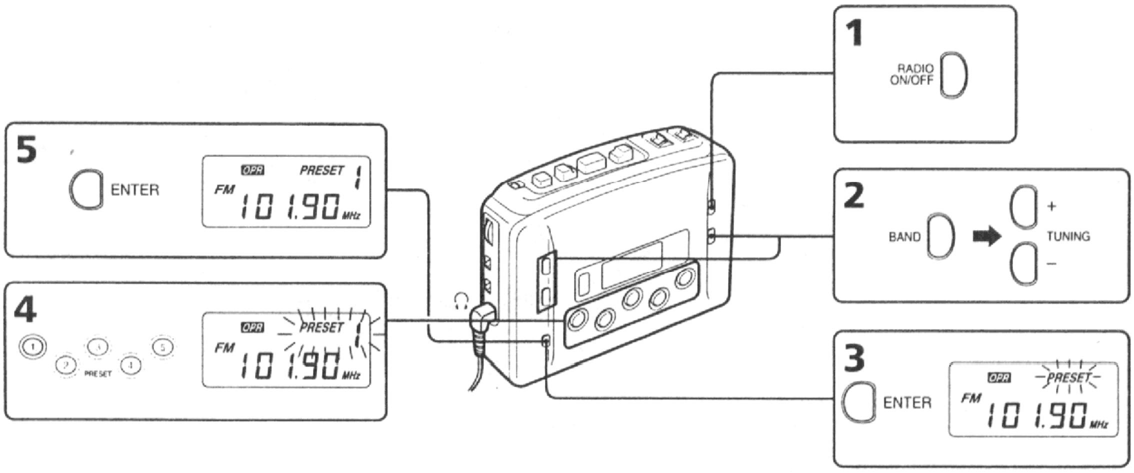
DOLBY NR (FX 435)

Play DOLBY NR processed tapes.


DOLBY NR
OFF ON

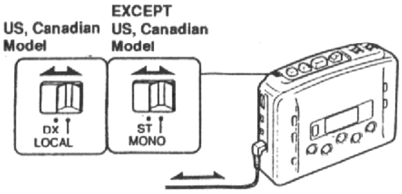

1
RADIO ON/OFF
VOL
2
BAND
OPR
FM 98.00 MHz
AM 810 kHz
3
+
TUNING
–
FM 101.90 MHz

Preset tuning

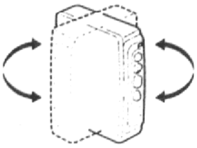

1
RADIO ON/OFF
2
BAND
+
TUNING
–
3
ENTER
OPR PRESET
FM 101.90 MHz
4
1 2 3 4 5
PRESET
OPR PRESET 1
FM 101.90 MHz
5
ENTER
OPR PRESET 1
FM 101.90 MHz

Improve radio reception

FM
Extend the headphones cord or adjust the ST/MONO selector.


US, Canadian Model
EXCEPT US, Canadian Model
DX
LOCAL
ST
MONO

AM
Rotate the Walkman.

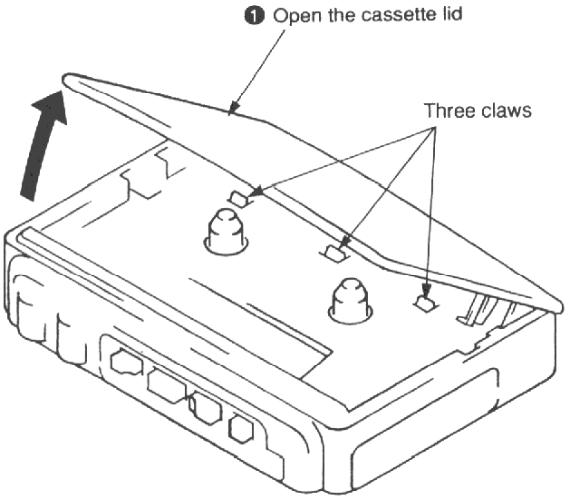


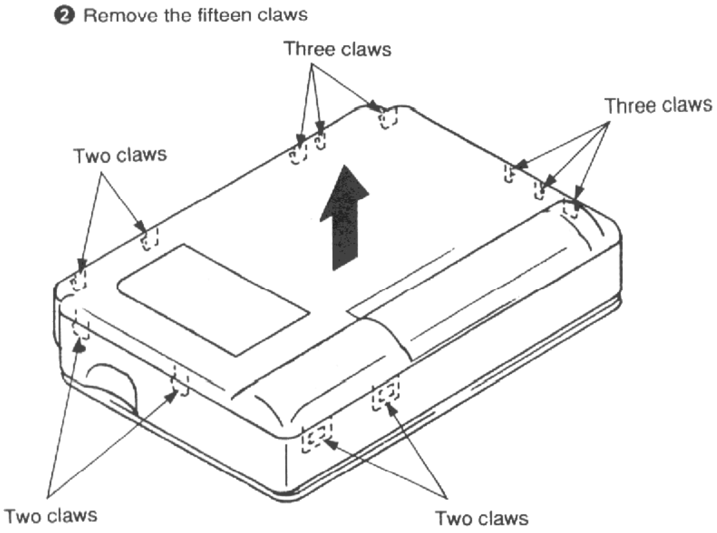
SECTION 2

DISASSEMBLY

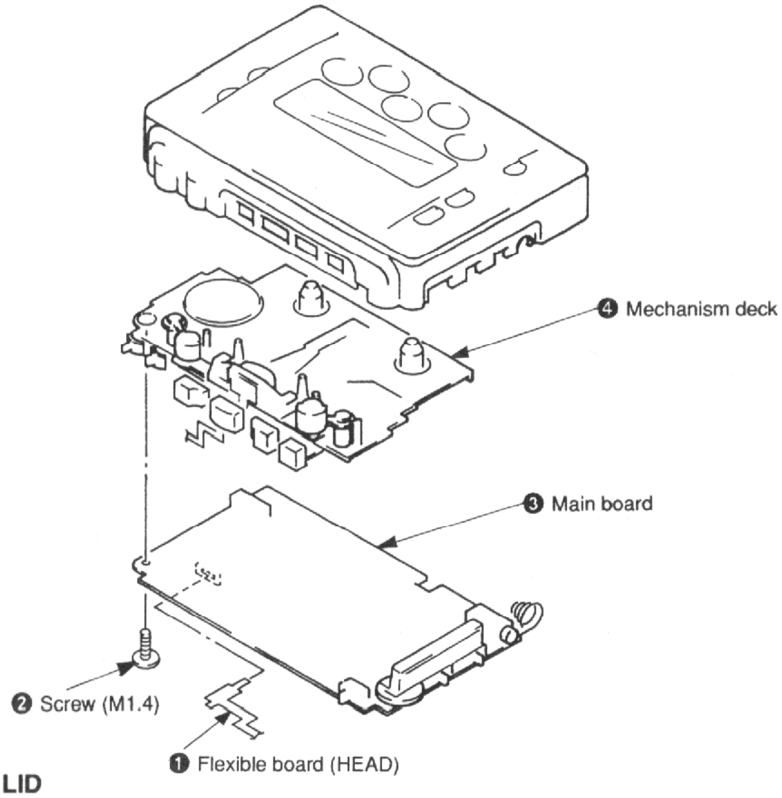
Note : Follow the disassembly procedure in the numerical order given.

2-1. CABINET (REAR) ASSEMBLY


❶ Open the cassette lid
Three claws

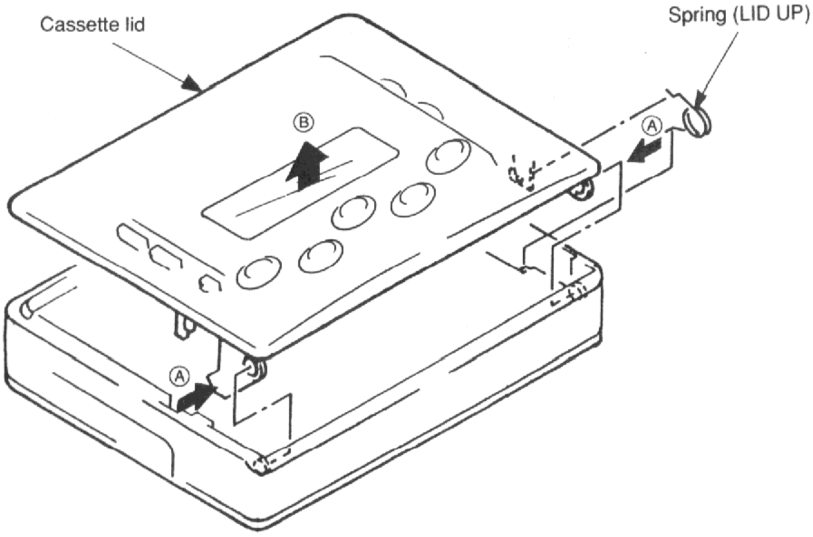

❷ Remove the fifteen claws
Three claws
Three claws
Two claws
Two claws
Two claws

2-2. MECHANISM DECK AND MAIN BOARD

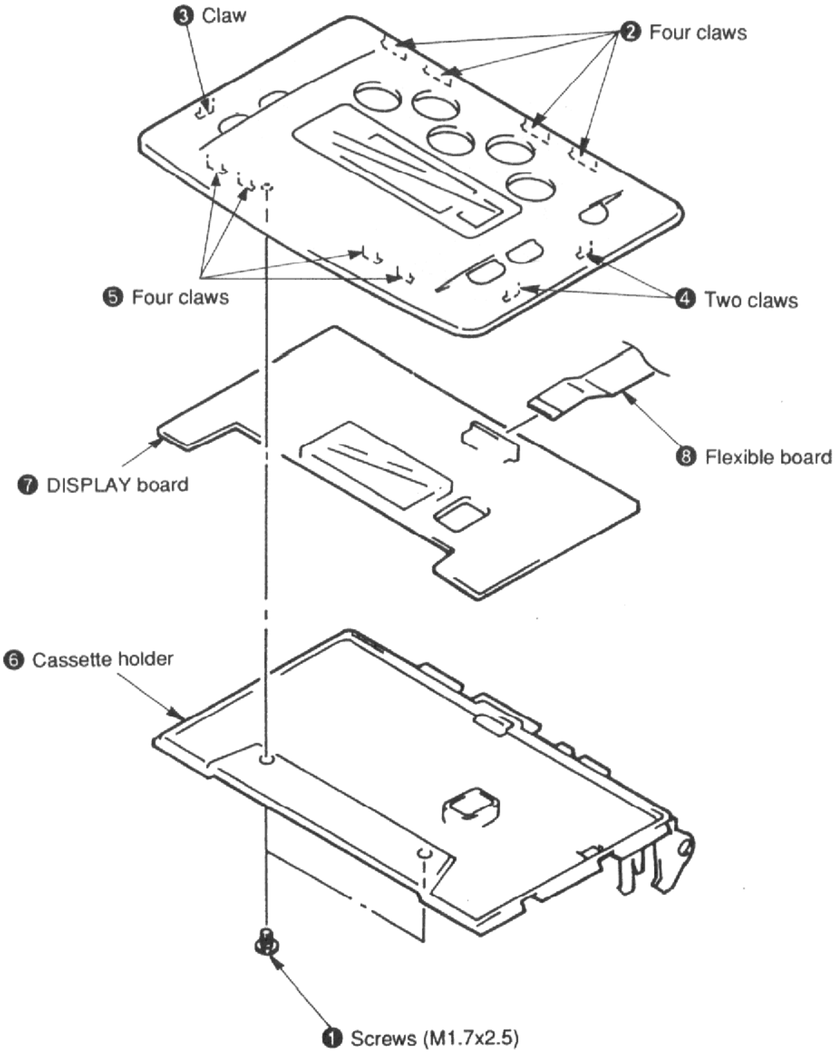

❹ Mechanism deck
❸ Main board
❷ Screw (M1.4)
❶ Flexible board (HEAD)

2-3. CASSETTE LID

Remove the Cassette lid in the arrow direction Ⓑ pressing it in the arrow direction Ⓐ.


Cassette lid
Spring (LID UP)
Ⓑ
Ⓐ
Ⓐ

2-4. DISPLAY BOARD


❸ Claw
❷ Four claws
❺ Four claws
❹ Two claws
❽ Flexible board
❼ DISPLAY board
❻ Cassette holder
❶ Screws (M1.7x2.5)

SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :

playback head	pinch roller
capstan	rubber belts

2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage (2.5V) unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	20 — 42 g • cm (0.28 — 0.58 oz • inch)
FWD Back Tension		less than 2 g • cm (less than 0.03 oz • inch)
REV	CQ-102RC	20 — 42 g • cm (0.28 — 0.58 oz • inch)
REV Back Tension		less than 2 g • cm (less than 0.03 oz • inch)
FF, REW	CQ-201B	more than 50 g • cm (more than 0.69 oz • inch)

3-2. ELECTRICAL ADJUSTMENTS

TAPE SECTION

PRECAUTION

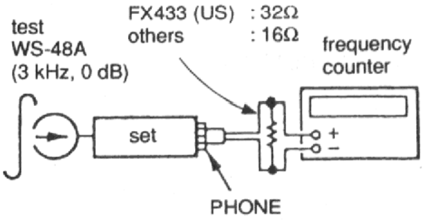
- Supplied voltage : 2.5V
- Switch and control position
  TAPE switch : NORM
  MEGA BASS switch : OFF
  VOLUME control : maximum
  AVLS switch : OFF
  DOLBY NR switch : OFF (FX435)

Test Tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

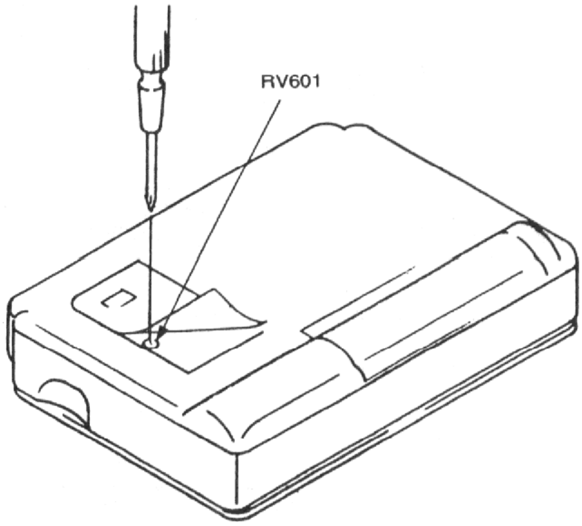
Tape speed adjustment

Procedure :



1. Play back WS-48A (tape center portion) in reverse mode. Adjust the RV601 so that the frequency counter reads 3,000Hz ± 10Hz.

Adjustment Location :



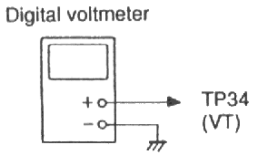
TUNER SECTION

FM SECTION

setting :

FUNCTION switch : RADIO
BAND switch : FM

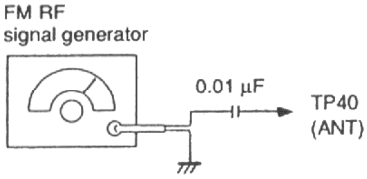
FM TUNING VOLTAGE ADJUSTMENT


Digital voltmeter
+
−
TP34
(VT)

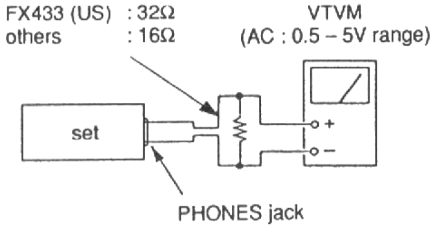
FM TUNING VOLTAGE ADJUSTMENT
Adjust for a 4.3 ± 0.03 (0.5 ± 0.03) ((1.05 ± 0.03)) Vdc reading on Digital voltmeter
L8
87.5 (59.75) ((65.0)) MHz

( ) : US, CND MODEL, (( )) : East European model

FM TRACKING ADJUSTMENT


FM RF
signal generator
0.01 µF
TP40
(ANT)

Modulation : 400Hz, 30%
Output level : as low as possible.

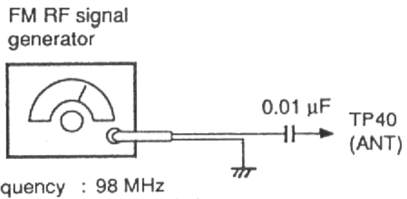

FX433 (US) : 32Ω
others : 16Ω
VTVM
(AC : 0.5 – 5V range)
set
+
−
PHONES jack

- Repeat the procedures in each adjustment several times, and the tracking adjustment should be finally done by the trimmer capacitors.

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L9	Confirm
87.5 (59.75) ((65.0)) MHz	108 MHz

( ) : US, CND MODEL, (( )) : East European model

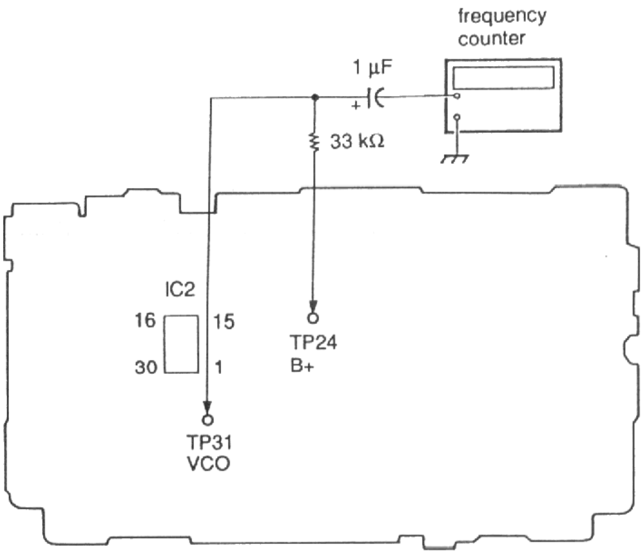
VCO ADJUSTMENT


FM RF signal
generator
0.01 µF
TP40
(ANT)

Carrier frequency : 98 MHz
Modulation : no modulation
Output level : 55 dB (562µV)

1. Connect the frequency counter to ④ and ⑦ pins of IC2 as shown the figure below.
2. Turn the set to 98 MHz.
3. Adjust RV1 for 76 kHz ± 500 Hz reading on frequency counter.

[MAIN BOARD] (SIDE B)

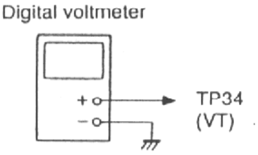

frequency
counter
1 µF
+
33 kΩ
IC2
16
15
30
1
TP24
B+
TP31
VCO

TV SECTION (US model only)

setting :

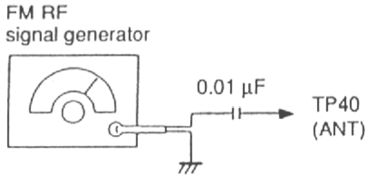
FUNCTION switch : RADIO
BAND switch : TV

TV TUNING VOLTAGE ADJUSTMENT

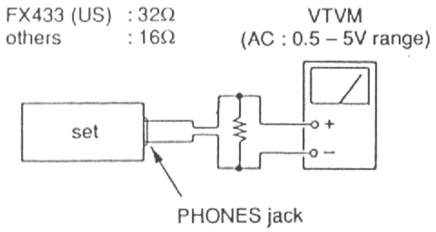

Digital voltmeter
+
−
TP34
(VT)

TV TUNING VOLTAGE ADJUSTMENT
Adjust for a 3.0 ± 0.03 Vdc reading on Digital voltmeter
L4
179.75 kHz (7ch)

TV TRACKING ADJUSTMENT


FM RF
signal generator
0.01 µF
TP40
(ANT)

Modulation : 400Hz, 30%
Output level : as low as possible.


FX433 (US) : 32Ω
others : 16Ω
VTVM
(AC : 0.5 – 5V range)
set
+
−
PHONES jack

- Repeat the procedures in each adjustment several times, and the tracking adjustment should be finally done by the trimmer capacitors.

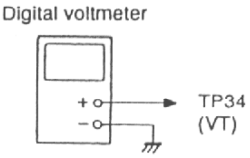
TV TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	CT1
179.75 MHz	215.75 MHz (13ch)

AM SECTION

setting :

FUNCTION switch : RADIO
BAND switch : AM

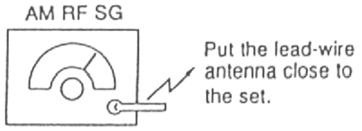
AM TUNING VOLTAGE ADJUSTMENT


Digital voltmeter
+
−
TP34
(VT)

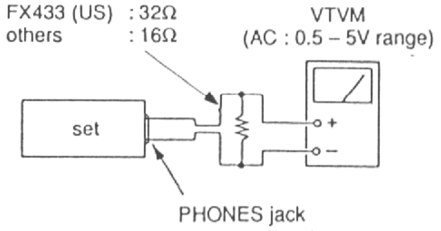
AM TUNING VOLTAGE ADJUSTMENT
Adjust for a 1.10 ± 0.03 Vdc reading on Digital voltmeter
L6
530 (531) kHz

( ) : EXCEPT US, Canadian model

AM IF ADJUSTMENT, AM TRACKING ADJUSTMENT


AM RF SG
Put the lead-wire
antenna close to
the set.

Modulation : 400Hz 30%
Ooutput level : as low as possible.


FX433 (US) : 32Ω
others : 16Ω
VTVM
(AC : 0.5 – 5V range)
set
+
−
PHONES jack

- Repeat the procedures in each adjustment several times, and the tracking adjustment should be finally done by the trimmer capacitors.

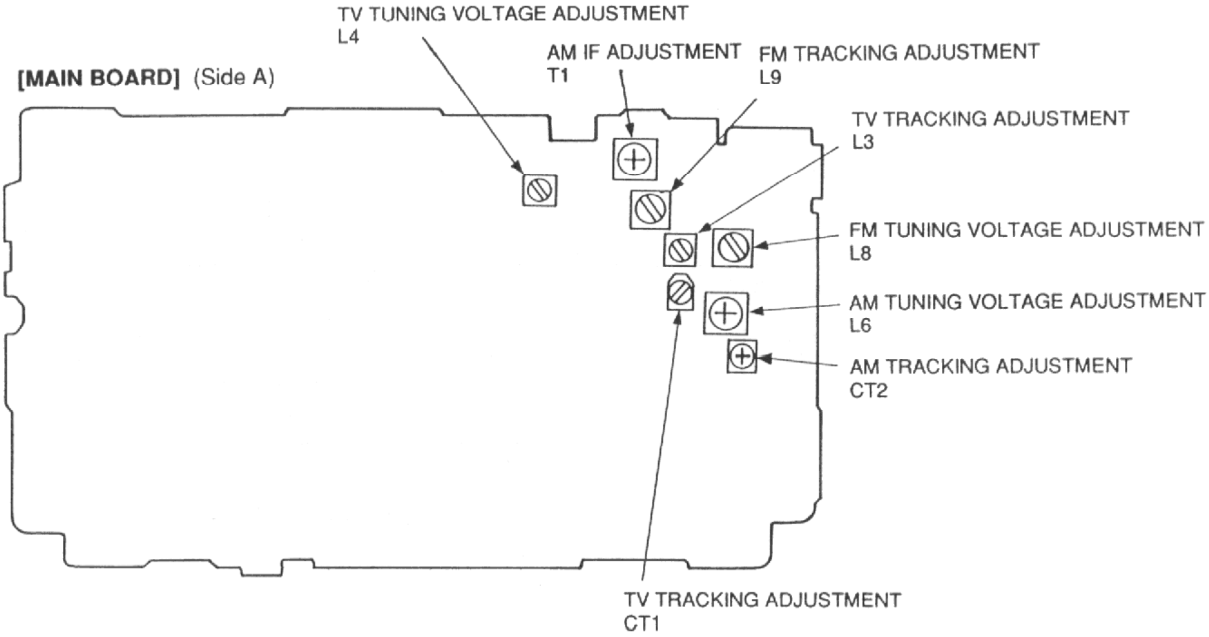
AM IF ADJUSTMENT
Adjust for a maximum reading on VTVM.
T1
1000 (999) kHz

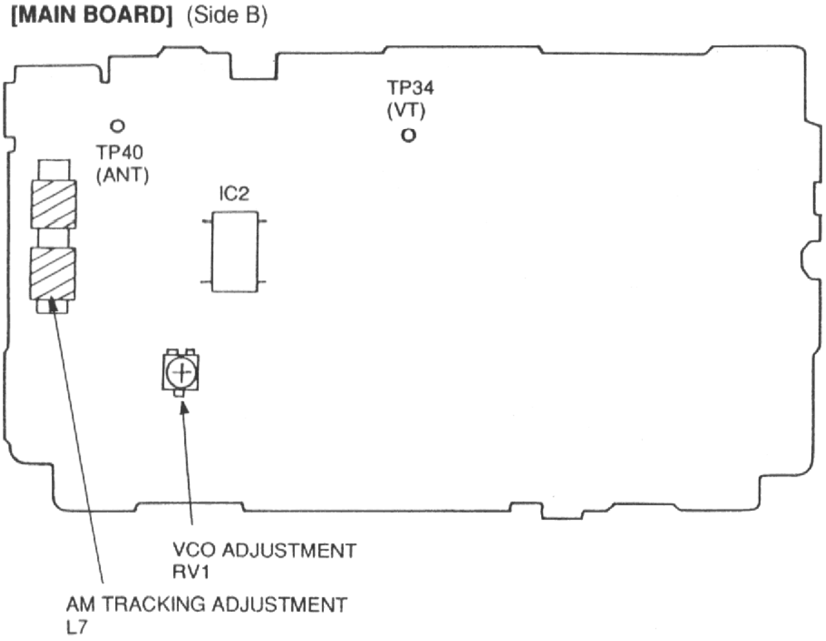
( ) : EXCEPT US, Canadian model

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L7	CT2
620 (621) kHz	1400 (1395) kHz

( ) : EXCEPT US, Canadian model

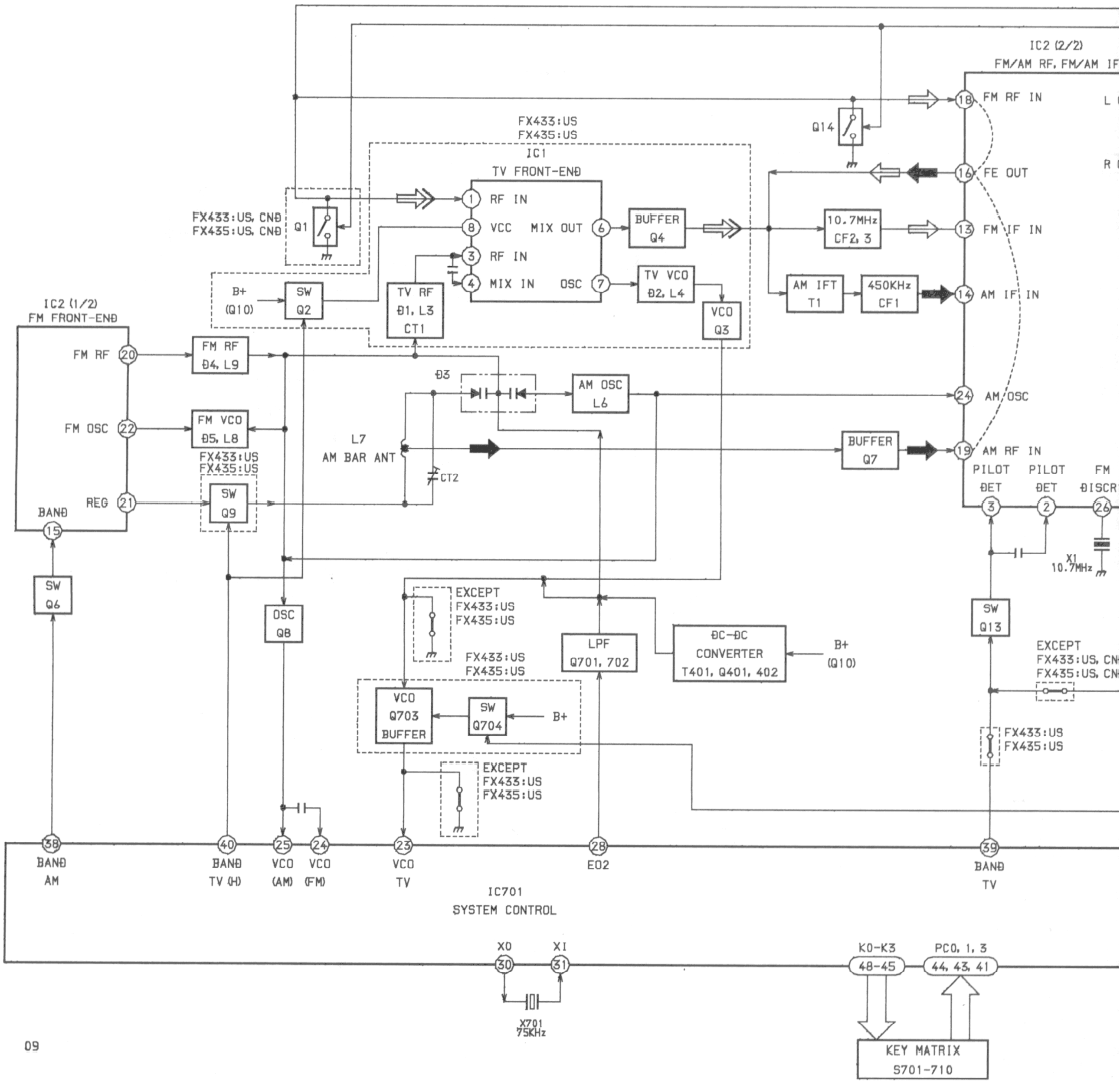
Adjustment Part Location Diagram :


[MAIN BOARD] (Side A)
TV TUNING VOLTAGE ADJUSTMENT
L4
AM IF ADJUSTMENT
T1
FM TRACKING ADJUSTMENT
L9
TV TRACKING ADJUSTMENT
L3
FM TUNING VOLTAGE ADJUSTMENT
L8
AM TUNING VOLTAGE ADJUSTMENT
L6
AM TRACKING ADJUSTMENT
CT2
TV TRACKING ADJUSTMENT
CT1

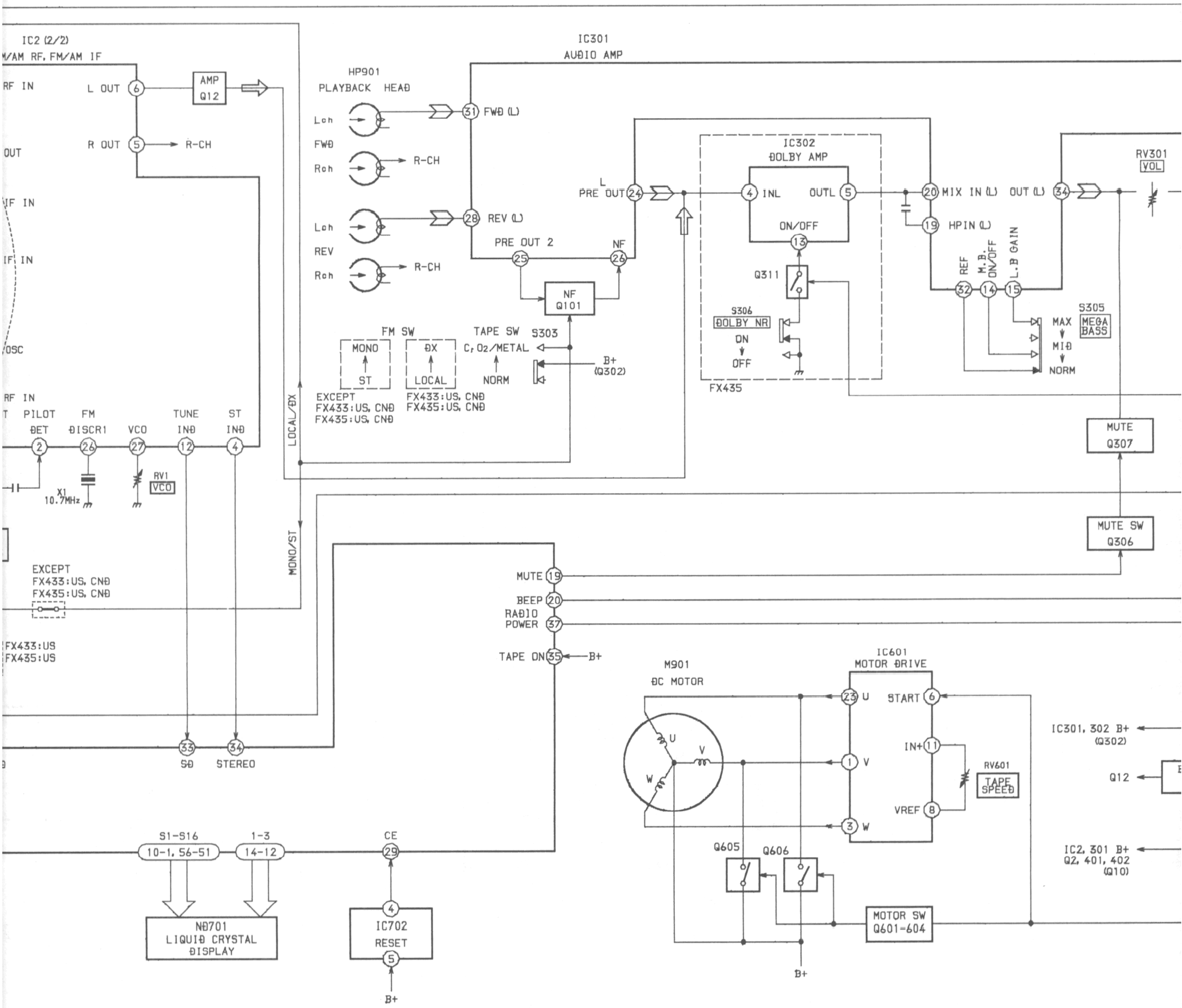

[MAIN BOARD] (Side B)
TP34
(VT)
TP40
(ANT)
IC2
VCO ADJUSTMENT
RV1
AM TRACKING ADJUSTMENT
L7

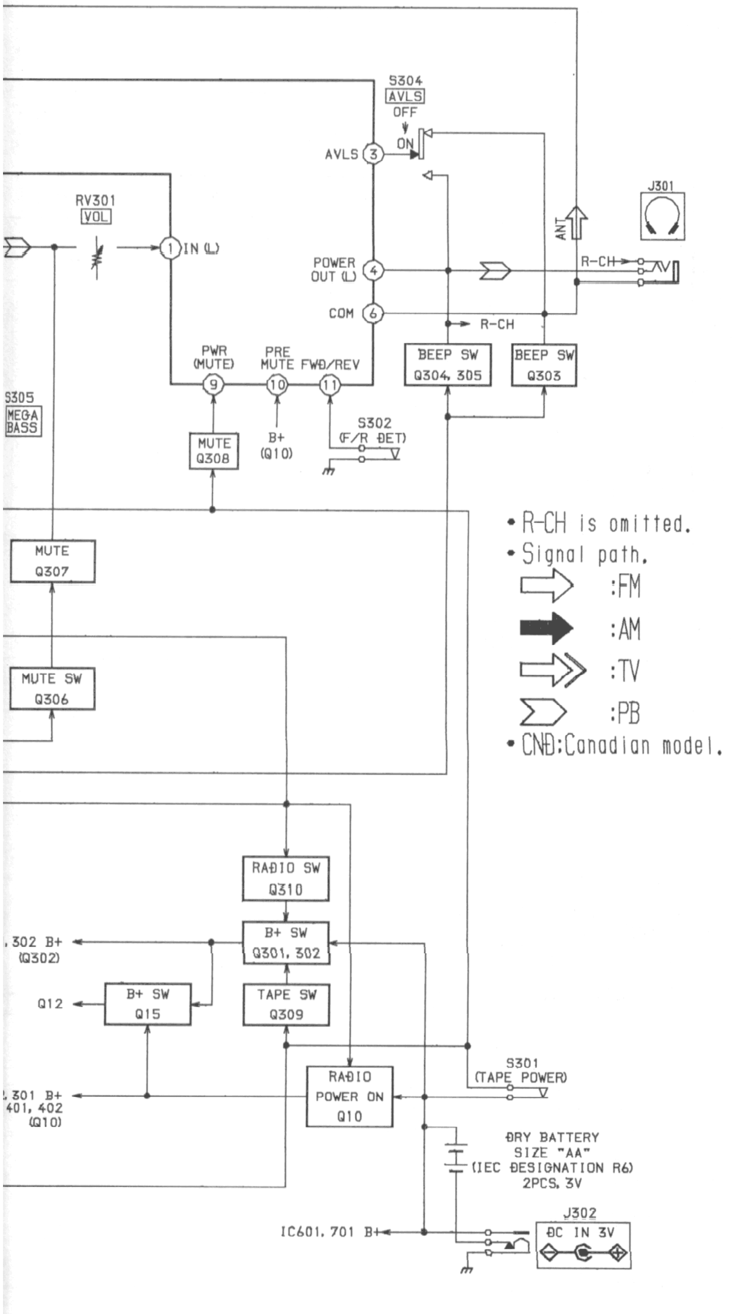
SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM


IC2 (2/2)
FM/AM RF, FM/AM IF
FM RF IN
FE OUT
FM IF IN
AM IF IN
AM OSC
AM RF IN
PILOT DET
PILOT DET
FM DISCR
X1 10.7MHz
Q14
FX433:US
FX435:US
IC1
TV FRONT-END
RF IN
VCC
MIX OUT
RF IN
MIX IN
OSC
BUFFER Q4
10.7MHz CF2, 3
AM IFT T1
450KHz CF1
TV VCO D2, L4
VCO Q3
TV RF D1, L3 CT1
FX433:US, CND
FX435:US, CND
Q1
B+ (Q10)
SW Q2
IC2 (1/2)
FM FRONT-END
FM RF
FM OSC
REG
BAND
FM RF D4, L9
FM VCO D5, L8
FX433:US
FX435:US
SW Q9
D3
AM OSC L6
L7
AM BAR ANT
CT2
BUFFER Q7
SW Q6
OSC Q8
EXCEPT
FX433:US
FX435:US
LPF Q701, 702
DC-DC CONVERTER T401, Q401, 402
B+ (Q10)
SW Q13
EXCEPT
FX433:US, CN
FX435:US, CN
FX433:US
FX435:US
VCO Q703 BUFFER
SW Q704
B+
EXCEPT
FX433:US
FX435:US
BAND AM
BAND TV (H)
VCO (AM)
VCO (FM)
VCO TV
EO2
BAND TV
IC701
SYSTEM CONTROL
XO
XI
X701 75KHz
KO-K3 48-45
PCO, 1, 3 44, 43, 41
KEY MATRIX S701-710

09


IC2 (2/2)
/AM RF, FM/AM IF
RF IN
L OUT 6
AMP Q12
R OUT 5
R-CH
OUT
IF IN
IF IN
/OSC
RF IN
PILOT DET 2
FM DISCRI 26
VCO 27
TUNE IND 12
ST IND 4
X1 10.7MHz
RV1 VCO
EXCEPT FX433:US, CND FX435:US, CND
FX433:US
FX435:US
LOCAL/DX
MONO/ST
33 SD
34 STEREO
HP901 PLAYBACK HEAD
Lch FWD Rch
Lch REV Rch
R-CH
R-CH
IC301 AUDIO AMP
31 FWD (L)
28 REV (L)
PRE OUT 2 25
NF 26
L PRE OUT 24
NF Q101
FM SW
MONO ST
DX LOCAL
EXCEPT FX433:US, CND FX435:US, CND
FX433:US, CND FX435:US, CND
TAPE SW S303
CrO2/METAL
NORM
B+ (Q302)
IC302 DOLBY AMP
4 INL
OUTL 5
ON/OFF 13
Q311
S306 DOLBY NR
ON OFF
FX435
20 MIX IN (L)
OUT (L) 34
19 HPIN (L)
REF 32
M.B. ON/OFF 14
L.B GAIN 15
RV301 VOL
S305 MEGA BASS
MAX MID NORM
MUTE Q307
MUTE SW Q306
MUTE 19
BEEP 20
RADIO POWER 37
TAPE ON 35
B+
S1-S16 10-1, 56-51
1-3 14-12
CE 29
ND701 LIQUID CRYSTAL DISPLAY
IC702 RESET 4 5
B+
M901 DC MOTOR
U V W
IC601 MOTOR DRIVE
23 U
1 V
3 W
START 6
IN+ 11
VREF 8
RV601 TAPE SPEED
Q605
Q606
MOTOR SW Q601-604
B+
IC301, 302 B+ (Q302)
Q12
IC2, 301 B+ Q2, 401, 402 (Q10)


S304
AVLS
OFF
ON
AVLS
3
RV301
VOL
1
IN (L)
J301
ANT
POWER
OUT (L)
4
R-CH
COM
6
R-CH
PWR
(MUTE)
PRE
MUTE
FWD/REV
9
10
11
BEEP SW
Q304, 305
BEEP SW
Q303
S305
MEGA
BASS
MUTE
Q308
B+
(Q10)
S302
(F/R DET)
MUTE
Q307
MUTE SW
Q306
RADIO SW
Q310
, 302 B+
(Q302)
B+ SW
Q301, 302
Q12
B+ SW
Q15
TAPE SW
Q309
S301
(TAPE POWER)
, 301 B+
401, 402
(Q10)
RADIO
POWER ON
Q10
DRY BATTERY
SIZE "AA"
(IEC DESIGNATION R6)
2PCS, 3V
J302
DC IN 3V
IC601, 701 B+

- R-CH is omitted.
- Signal path.

⇨ :FM

➡ :AM

⇛ :TV

▷ :PB

- CND: Canadian model.

4-2. IC PI

- **IC701 T**

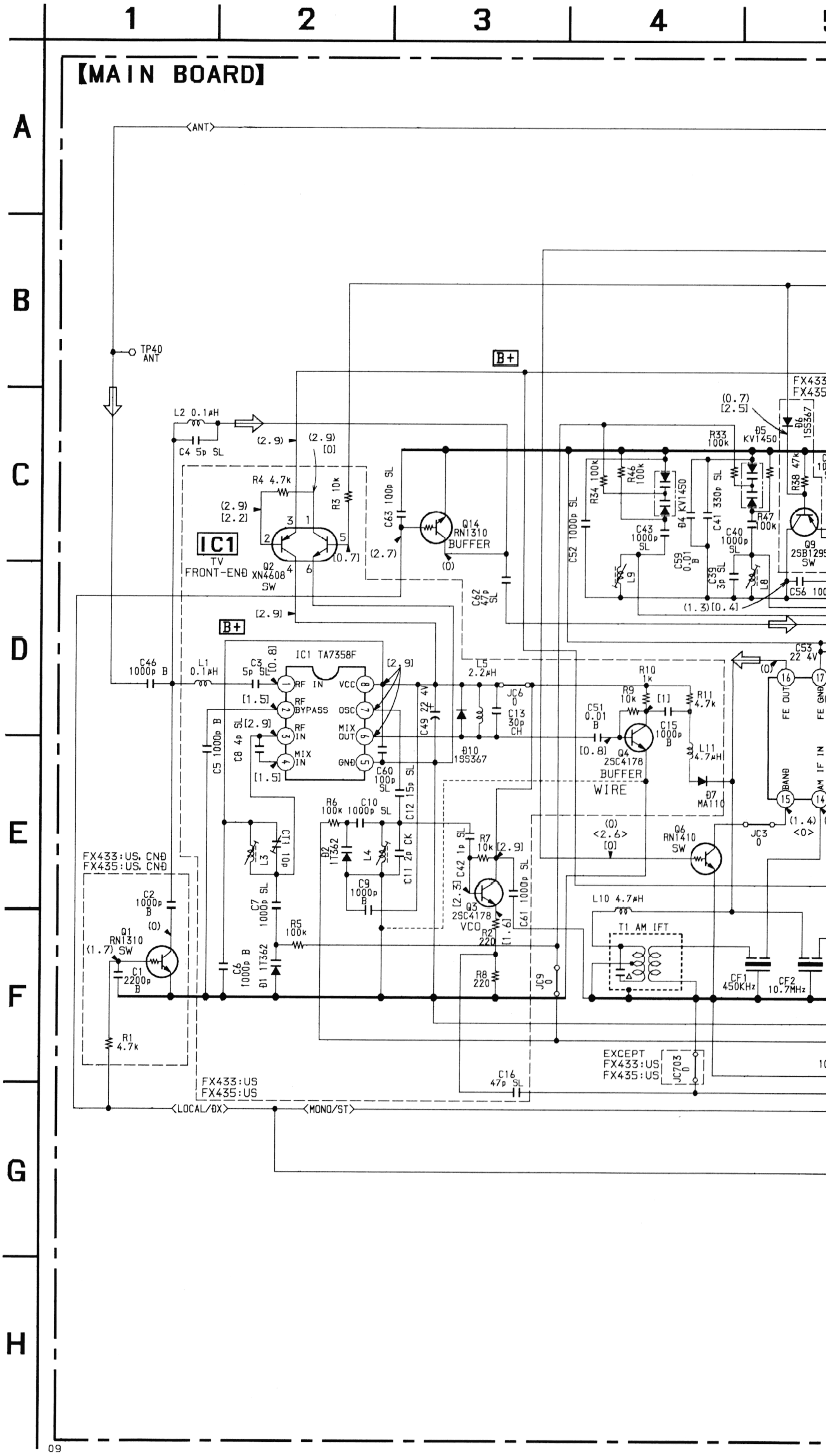
Pin No.
1 to 10
11
12 to 14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43, 44
45 to 48
49, 50
51 to 56

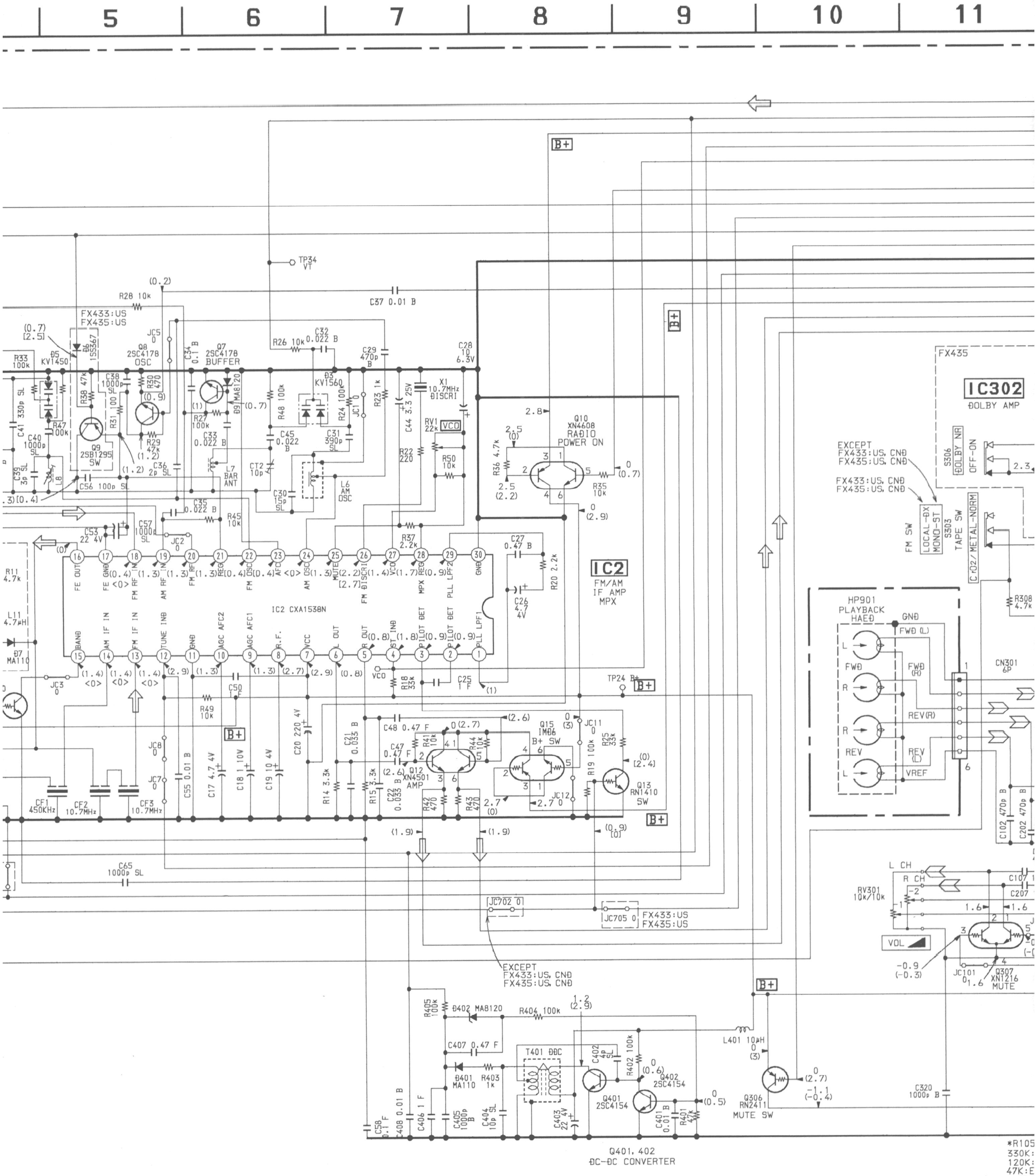
4-2. IC PIN FUNCTION

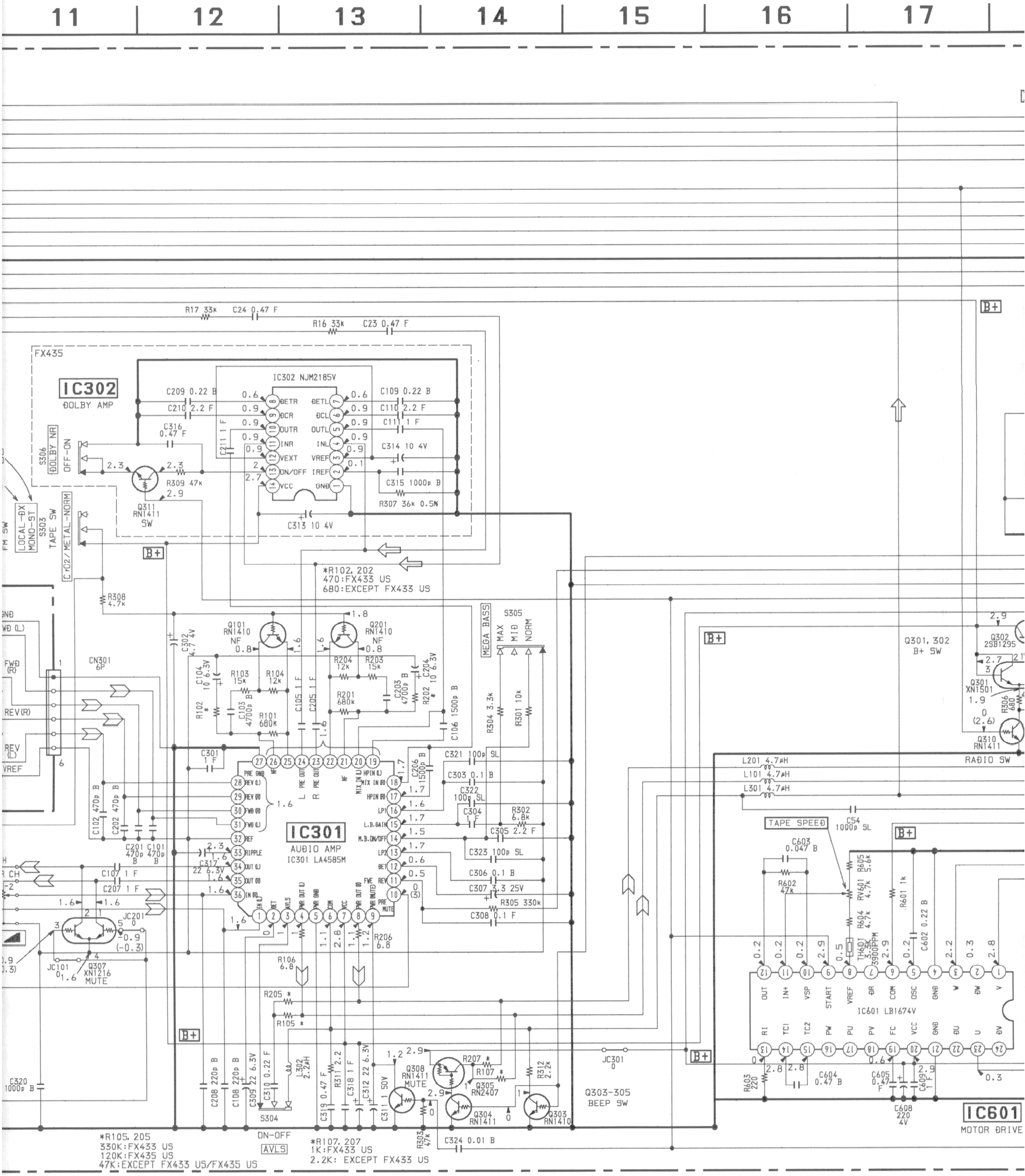
- **IC701 TUNER CONTROLLER/LCD DRIVE (μPD1724GB)**

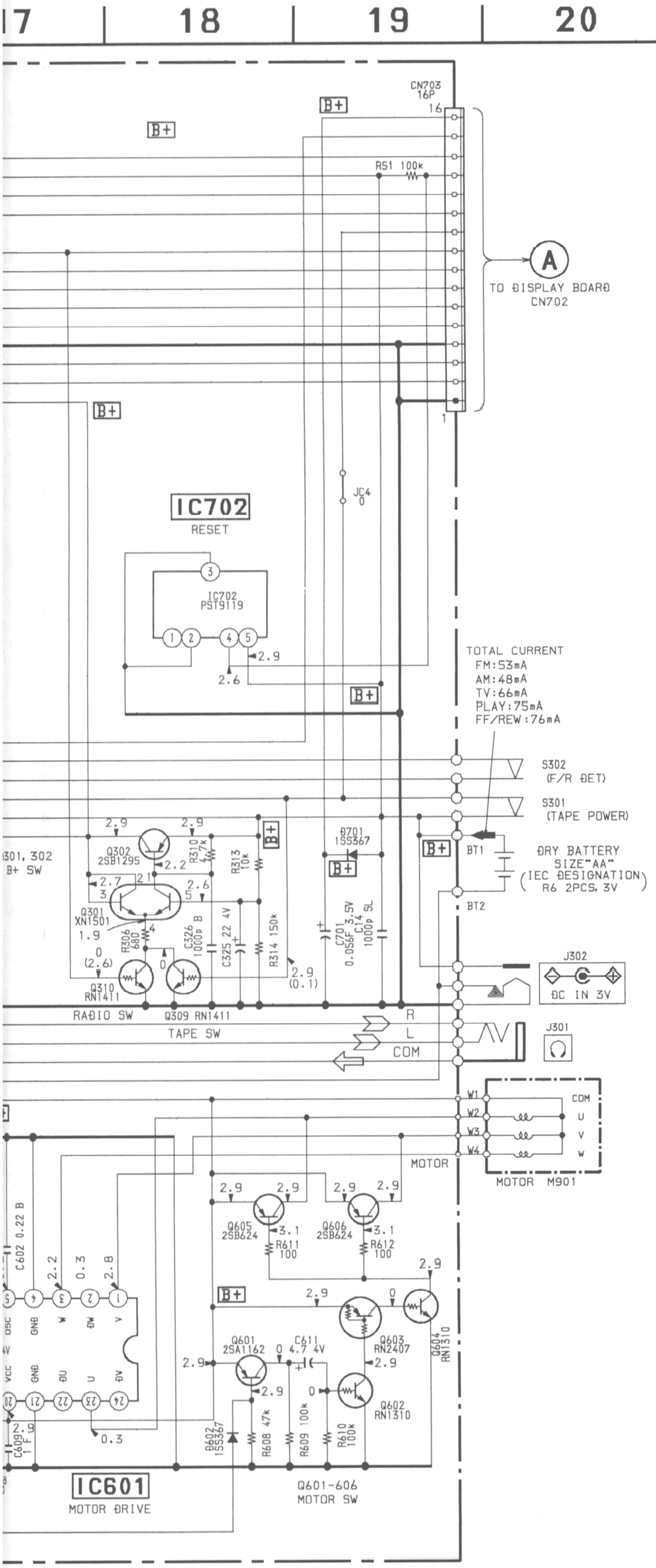
Pin No.	Pin Name	I/O	Function
1 to 10	S10 to S1	O	LCD segment signal output pin
11	NC	–	Not used
12 to 14	COM3 to COM1	O	LCD common signal output pin
15	VSS3	–	Pins connecting capacitors for doubler circuits generating the LCD drive voltage
16	CAP2	–	
17	CAP1	–	
18	VSS2	–	
19	MUTE	O	Generates 1.12 kHz pulses when using as a VDP
20	BEEP	O	BEEP signal output terminal
21	NC	–	Not used
22	VDD	–	The internal reset circuit functions when supplied with 0V to 1.5V
23	VCO (TV)	I	Partial oscillation frequency input pin (direct dividing method) (HIGH IMP when CE is low)
24	VCO (FM)	I	Partial oscillation frequency input pin (pulse swallow method) (PULL DOWN when CE is low)
25	VCO (AM)	I	
26	VSS1	–	GND
27	E01	O	Not used
28	E02	O	When the frequency obtained by frequency dividing the partial oscillation frequency is higher than the reference frequency: HIGH output. When Lower: LOW output. When the same: HIGH-IMP.
29	CE	I	The internal reset circuit functions when LOW becomes HIGH
30	XO	O	Connected to the liquid crystal oscillator Oscillates 75 kHz liquid crystals
31	XI	I	
32	VSS4	–	Connected to the regulator circuit capacitor
33	SD	I	No broadcasting station: HIGH output. With: LOW output
34	STEREO	I	Stereo level input ("L": Light on)
35	TAPE ON	I	Tape signal input ("H": TAPE)
36	KEY INIT	O	Initialize
37	RADIO POWER	O	Radio power on
38	BAND AM	O	Outputs HIGH potential only during AM reception
39	BAND TV	O	Become LOW potential when TV channels 1 to 3 are received
40	BAND TV (H)	O	Become HIGH potential when TV channels 4 to 12 are received
41	PC3	O	Timing signal output for key matrix
42	PC2	O	Not used
43, 44	P0, P1	O	Timing signal output for key matrix
45 to 48	K0 to K3	I	Key input
49, 50	NC	–	Not used
51 to 56	S16 to S11	O	LCD segment signal output pin

4-3. SCHEMATIC DIAGRAM — MAIN SECTION — • See page 25 for IC Block Diagrams.


1
2
3
4
A
B
C
D
E
F
G
H
[MAIN BOARD]
<ANT>
TP40 ANT
L2 0.1μH
C4 5p SL
B+
IC1 TV FRONT-END
Q2 XN4608 SW
R4 4.7k
R3 10k
C63 1000p SL
Q14 RN1310 BUFFER
C62 47p SL
IC1 TA7358F
RF IN
RF BYPASS
RF IN
MIX IN
VCC
OSC
MIX OUT
GND
C46 1000p B
L1 0.1μH
C3 5p SL
C5 1000p B
C8 4p SL
C49 22 4V
C60 100p SL
C12 15p SL
L5 2.2μH
JC6 0
C13 30p CH
D10 1SS367
R6 100k
C10 1000p SL
D2 1T362
L4
C11 2p CK
C9 1000p B
L3
C13 10p
C7 1000p SL
R5 100k
C6 1000p B
D1 1T362
C42 1p SL
R7 10k
Q3 2SC4178 VCO
R2 220
C61 1000p SL
R8 220
JC9 0
C16 47p SL
FX433:US, CND
FX435:US, CND
C2 1000p B
Q1 RN1310 SW
C1 2200p B
R1 4.7k
FX433:US
FX435:US
<LOCAL/DX>
<MONO/ST>
C51 0.01 B
R9 10k
R10 1k
R11 4.7k
C15 1000p B
L11 4.7μH
Q4 2SC4178 BUFFER
WIRE
D7 MA110
Q6 RN1410 SW
JC3 0
L10 4.7μH
T1 AM IFT
CF1 450KHz
CF2 10.7MHz
EXCEPT FX433:US FX435:US
JC703 0
C52 1000p SL
R34 100k
R46 100k
R33 100k
D5 KV1450
D4 KV1450
C43 1000p SL
C41 330p SL
C59 0.01 B
L9
C39 3p SL
C40 1000p SL
R47 100k
L8
R38 47k
D6 1SS367
Q9 2SB1295 SW
C56 100
FX433
FX435
C53 22 4V
FE OUT
FE GND
AM IF IN
BAND
(0.7) [2.5]
(1.3) [0.4]
(2.9)
[0]
[2.2]
[0.7]
(2.7)
(0)
[0.8]
[1.5]
[2.9]
[1]
[0.8]
(0)
<2.6>
[0]
[2.3]
[1.6]
(1.7)
(1.4)
<0>
09


5
6
7
8
9
10
11
IC2
FM/AM IF AMP MPX
IC2 CXA1538N
IC302
DOLBY AMP
FX435
Q10 XN4608 RADIO POWER ON
Q7 2SC4178 BUFFER
Q8 2SC4178 OSC
Q9 2SB1295 SW
Q12 XN4501 AMP
Q13 RN1410 SW
Q15 1M06 B+ SW
Q401 2SC4154
Q402 2SC4154
Q401, 402 DC-DC CONVERTER
Q306 RN2411 MUTE SW
Q307 XN1216 MUTE
T401 DDC
L401 10μH
D401 MA110
D402 MA8120
D3 KV1560
D5 KV1450
D6 1SS367
D7 MA110
D9 MA8120
X1 10.7MHz DISCRI
L6 AM OSC
L7 BAR ANT
RV1 22k VCO
CF1 450KHz
CF2 10.7MHz
CF3 10.7MHz
TP34 VT
TP24 B+
B+
FX433:US
FX435:US
EXCEPT FX433:US, CND FX435:US, CND
FX433:US, CND FX435:US, CND
S306 DOLBY NR OFF-ON
S303 TAPE SW CrO2/METAL-NORM
FM SW LOCAL-DX MONO-ST
HP901 PLAYBACK HEAD
FWD (L)
FWD (R)
REV(R)
REV (L)
VREF
GND
CN301 6P
RV301 10k/10k
VOL
L CH
R CH
JC702 0
JC705 0
C37 0.01 B
C320 1000p B
C65 1000p SL
*R105 330K: 120K: 47K:


11
12
13
14
15
16
17
IC302
DOLBY AMP
IC302 NJM2185V
FX435
S306 DOLBY NR
OFF-ON
Q311 RN1411 SW
R309 47k
C209 0.22 B
C210 2.2 F
C316 0.47 F
C211 1 F
C109 0.22 B
C110 2.2 F
C111 1 F
C314 10 4V
C315 1000p B
R307 36k 0.5%
C313 10 4V
R17 33k
C24 0.47 F
R16 33k
C23 0.47 F
DETR
DCR
OUTR
INR
VEXT
ON/OFF
VCC
DETL
DCL
OUTL
INL
VREF
IREF
GND
LOCAL-DX MONO-ST
FM SW
S303 TAPE SW
CrO2/ METAL-NORM
R308 4.7k
CN301 6P
FWD (L)
FWD (R)
REV(R)
REV (L)
VREF
GND
*R102, 202
470:FX433 US
680:EXCEPT FX433 US
Q101 RN1410 NF
Q201 RN1410 NF
C302 4.7 4V
C104 10 6.3V
R103 15k
R104 12k
R204 12k
R203 15k
C204 10 6.3V
C203 4700p B
R202 *
R201 680k
R102 *
C103 4700p B
R101 680k
C105 1 F
C205 1 F
C106 1500p B
MEGA BASS
S305
MAX
MID
NORM
R304 3.3k
R301 10k
C301 1 F
IC301
AUDIO AMP
IC301 LA4585M
PRE GND
REV (L)
REV (R)
FWD (L)
FWD (R)
REF
RIPPLE
OUT (L)
OUT (R)
IN (R)
IN (L)
RET
AVLS
PWR OUT (L)
PWR GND
COM
VCC
PWR OUT (R)
PWR MUTE
PRE MUTE
FWD REV
BET
LP2
M.B.ON/OFF
L.B.GAIN
LP1
HPIN (R)
MIX IN (R)
MIX IN (L)
HPIN (L)
C206 1500p B
C321 100p SL
C303 0.1 B
C322 100p SL
C304 1 F
R302 6.8k
C305 2.2 F
C323 100p SL
C306 0.1 B
C307 3.3 25V
R305 330k
C308 0.1 F
R206 6.8
C102 470p B
C202 470p B
C201 470p B
C101 470p B
C317 22 6.3V
C107 1 F
C207 1 F
JC201 0
JC101 0
Q307 XN1216 MUTE
R106 6.8
R205 *
R105 *
C320 1000p B
C208 220p B
C108 220p B
C309 22 6.3V
C310 0.22 F
L302 2.2μH
S304
ON-OFF
AVLS
C319 0.47 F
R311 2.2
C318 1 F
C312 22 6.3V
C311 1 50V
Q308 RN1411 MUTE
R207 *
R107 *
Q305 RN2407
Q304 RN1411
R312 2.2k
Q303 RN1410
R303 47k
C324 0.01 B
JC301 0
Q303-305 BEEP SW
*R105, 205
330K:FX433 US
120K:FX435 US
47K:EXCEPT FX433 US/FX435 US
*R107, 207
1K:FX433 US
2.2K: EXCEPT FX433 US
B+
Q301, 302 B+ SW
Q302 2SB1295
Q301 XN1501
R306 680
Q310 RN1411
RADIO SW
L201 4.7μH
L101 4.7μH
L301 4.7μH
C54 1000p SL
TAPE SPEED
C603 0.047 B
R602 47k
R605 5.6k
RV601 4.7k
R604 4.7k
R601 1k
C602 0.22 B
TH601 3.3k 3900PPM
IC601 LB1674V
OUT
IN+
VSP
START
VREF
ФR
COM
OSC
GND
W
ФW
V
RI
TC1
TC2
PW
PU
PV
FC
VCC
GND
ФU
U
ФV
R603 220
C604 0.47 B
C605 0.47 F
C609 1 F
C608 220 4V
IC601
MOTOR DRIVE


17
18
19
20
21
22
23
CN703 16P
16
1
B+
R51 100k
A
TO DISPLAY BOARD CN702
IC702
RESET
IC702 PST9119
2.9
2.6
JC4 0
TOTAL CURRENT
FM:53mA
AM:48mA
TV:66mA
PLAY:75mA
FF/REW:76mA
S302 (F/R DET)
S301 (TAPE POWER)
D701 1SS367
BT1
DRY BATTERY SIZE"AA" (IEC DESIGNATION R6 2PCS, 3V)
BT2
Q301, 302 B+ SW
Q302 2SB1295
Q301 XN1501
R310 4.7k
R313 10k
R314 150k
R306 680
C326 1000p B
C325 22 4V
C701 0.056F 3.5V
C14 1000p SL
Q310 RN1411
Q309 RN1411
RADIO SW
TAPE SW
2.9 (0.1)
J302
DC IN 3V
R
L
COM
J301
W1
W2
W3
W4
COM
U
V
W
MOTOR
MOTOR M901
Q605 2SB624
Q606 2SB624
R611 100
R612 100
3.1
Q601 2SA1162
C611 4.7 4V
Q603 RN2407
Q604 RN1310
Q602 RN1310
D602 1SS367
R608 47k
R609 100k
R610 100k
C602 0.22 B
C609 1 F
OSC
GND
W
BW
V
VCC
GND
BU
U
BV
0.3
IC601
MOTOR DRIVE
Q601-606 MOTOR SW

NOTE

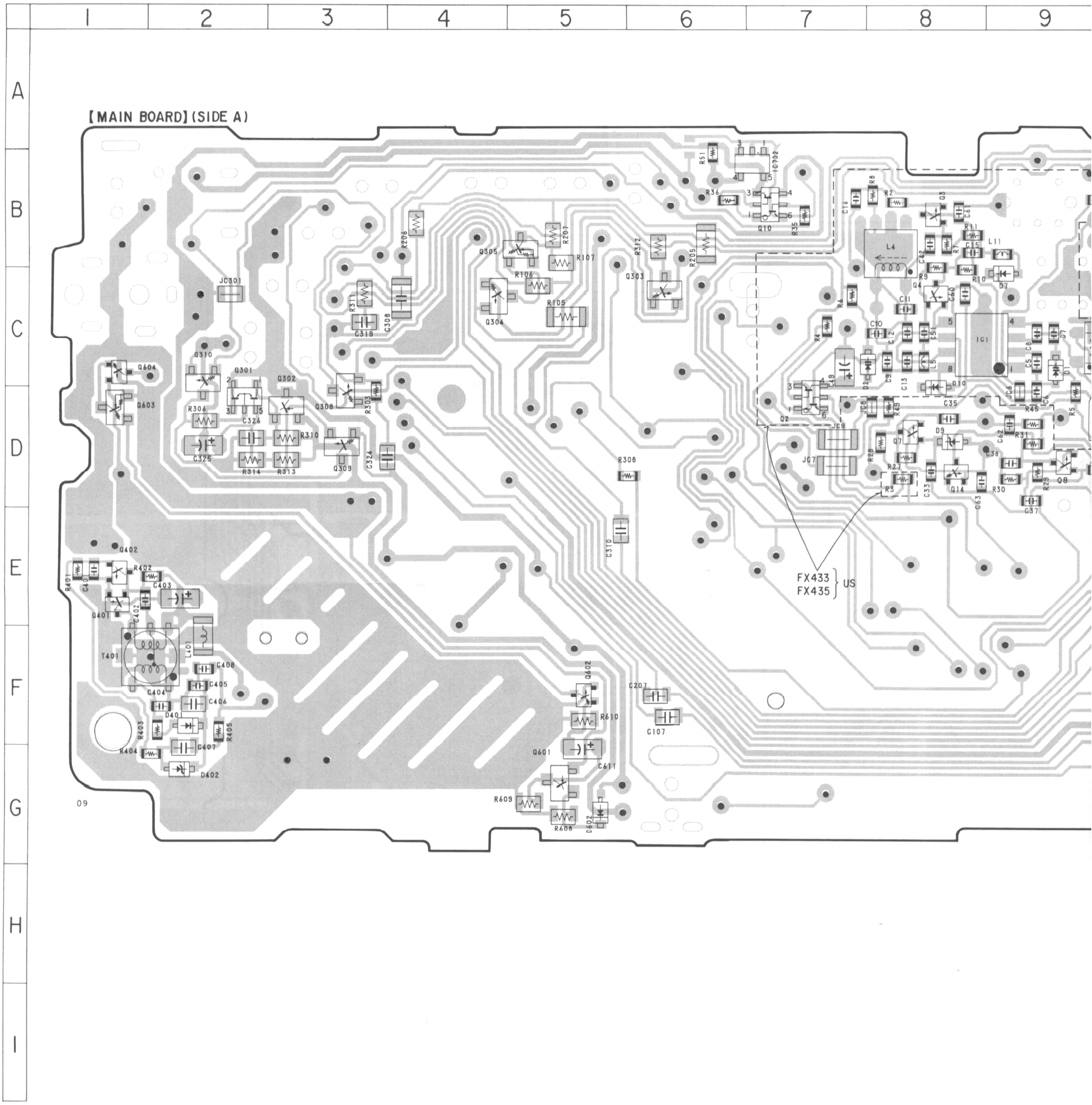
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ☐ : panel designation.

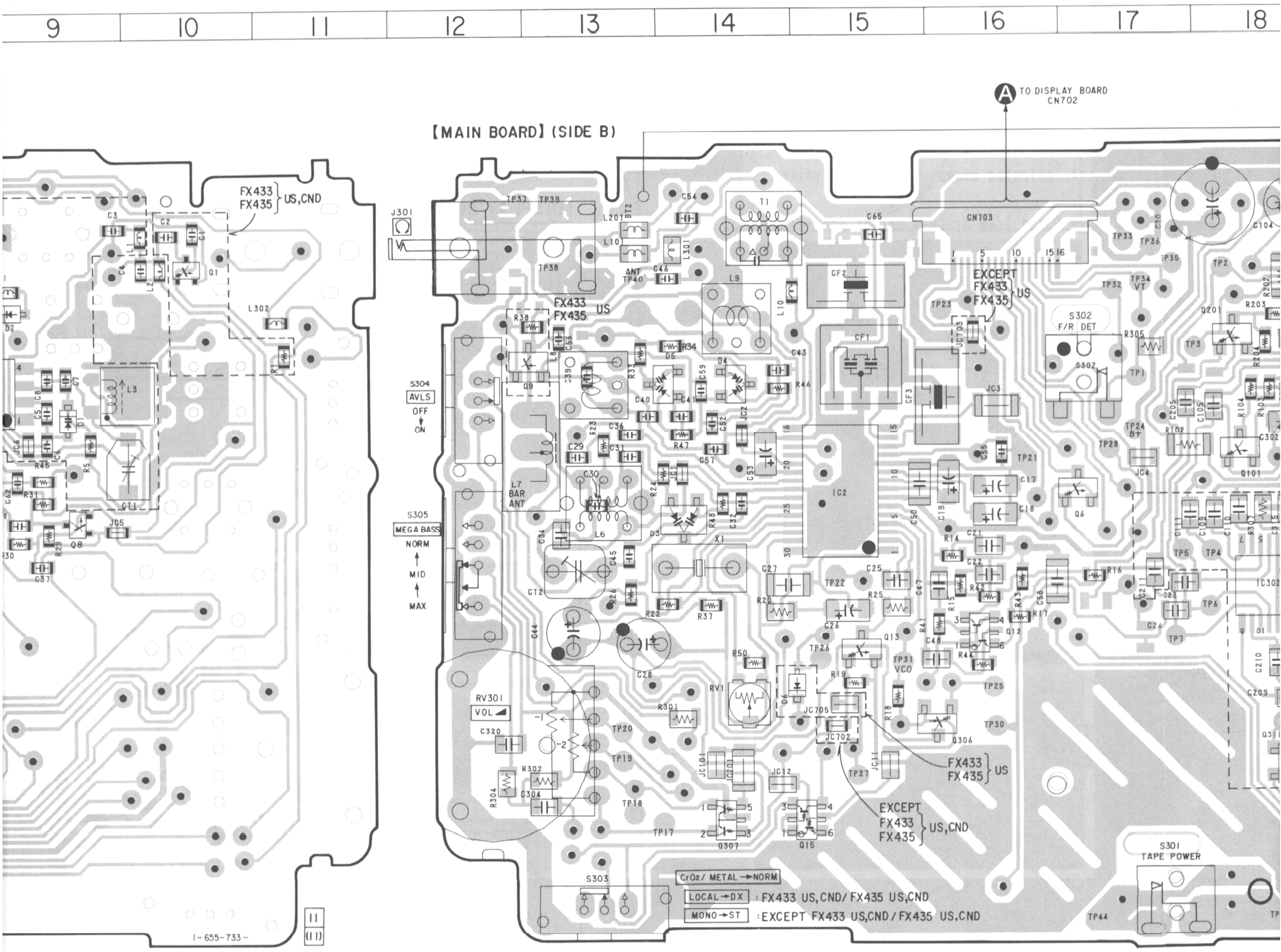
> Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
> Replace only with part number specified.

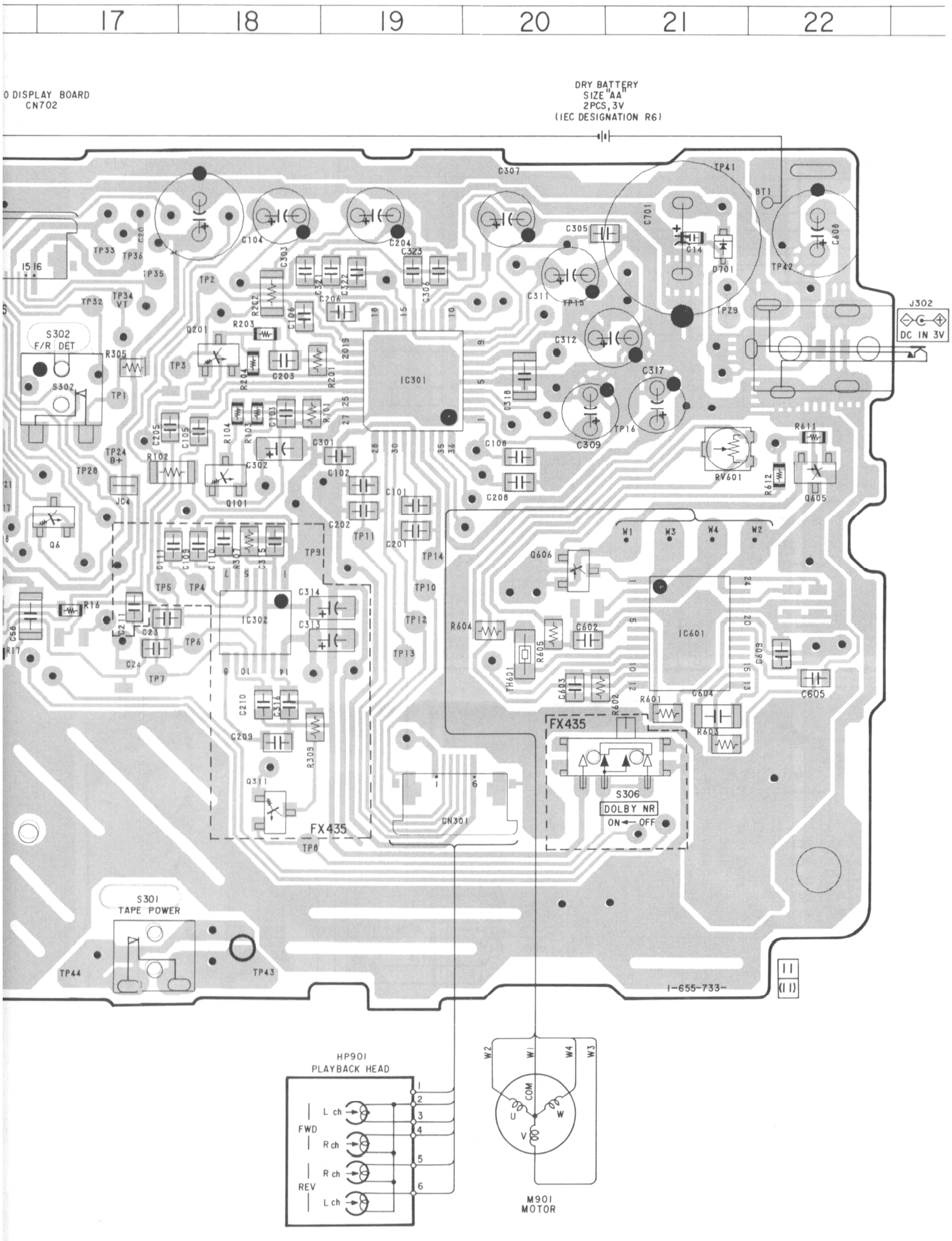
- B+ : B+ Line.
- ☐ : adjustment for repair.
- Power voltage is dc 3.0V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: TAPE PLAY
  ( ): FM
  < >: AM
  [ ]: TV
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Total current is measured with no cassette installed.
- Abbreviation
  CND: Canadian model.
- Signal path.
  ⇨ :FM
  ≻ :PB

4-4. PRINTED WIRING BOARD — MAIN SECTION —

• See page 27 for Semiconductor Lead Layouts.


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
[MAIN BOARD] (SIDE A)
R51
IC702
R36
Q10
R35
C16
R8
R2
Q3
C6
R11
C15
L11
L4
C42
R7
R9
R10
D7
Q4
C60
R206
R207
Q305
R107
R106
R105
Q304
R312
R205
Q303
JC301
R311
C319
C308
R6
C11
R4
C10
C12
C13
C51
L5
IC1
C8
C5
D1
Q7
Q310
Q301
Q302
Q604
Q603
R306
C326
Q308
R303
C49
D2
D10
C35
JC6
R45
R5
R310
C325
R314
R313
Q309
C324
Q2
JC8
R49
JC9
JC7
R28
D9
C62
R31
C36
R308
R27
R3
C33
Q14
R30
R29
Q8
C63
C37
C310
FX433
FX435
US
Q402
R401
C401
R402
C403
Q401
C402
T401
L401
C408
C405
C404
C406
D401
R403
R405
C407
R404
D402
Q602
C207
R610
C107
Q601
C611
R609
R608
D602
09


9
10
11
12
13
14
15
16
17
18
【MAIN BOARD】 (SIDE B)
A TO DISPLAY BOARD CN702
FX433 FX435 US,CND
FX433 FX435 US
EXCEPT FX433 FX435 US
EXCEPT FX433 FX435 US,CND
J301
S304 AVLS OFF ON
S305 MEGA BASS NORM MID MAX
RV301 VOL
S302 F/R DET
S301 TAPE POWER
S303
CrO2/ METAL → NORM
LOCAL → DX : FX433 US,CND/ FX435 US,CND
MONO → ST : EXCEPT FX433 US,CND / FX435 US,CND
IC2
IC302
CN703
CF1
CF2
CF3
T1
L7 BAR ANT
CT1
CT2
X1
RV1
TP31 VCO
TP24 B+
TP34 VT
ANT TP40
1-655-733-
11
(11)


17
18
19
20
21
22
DISPLAY BOARD CN702
DRY BATTERY SIZE "AA" 2PCS, 3V (IEC DESIGNATION R6)
BT1
J302
DC IN 3V
S302 F/R DET
IC301
IC302
IC601
Q101
Q201
Q6
Q311
Q605
Q606
RV601
TH601
D701
FX435
S306 DOLBY NR
ON ← OFF
CN301
S301 TAPE POWER
TP44
TP43
1-655-733-
HP901 PLAYBACK HEAD
FWD
REV
L ch
R ch
M901 MOTOR
COM
U
V
W
W1
W2
W3
W4

- **Semiconductor Location**

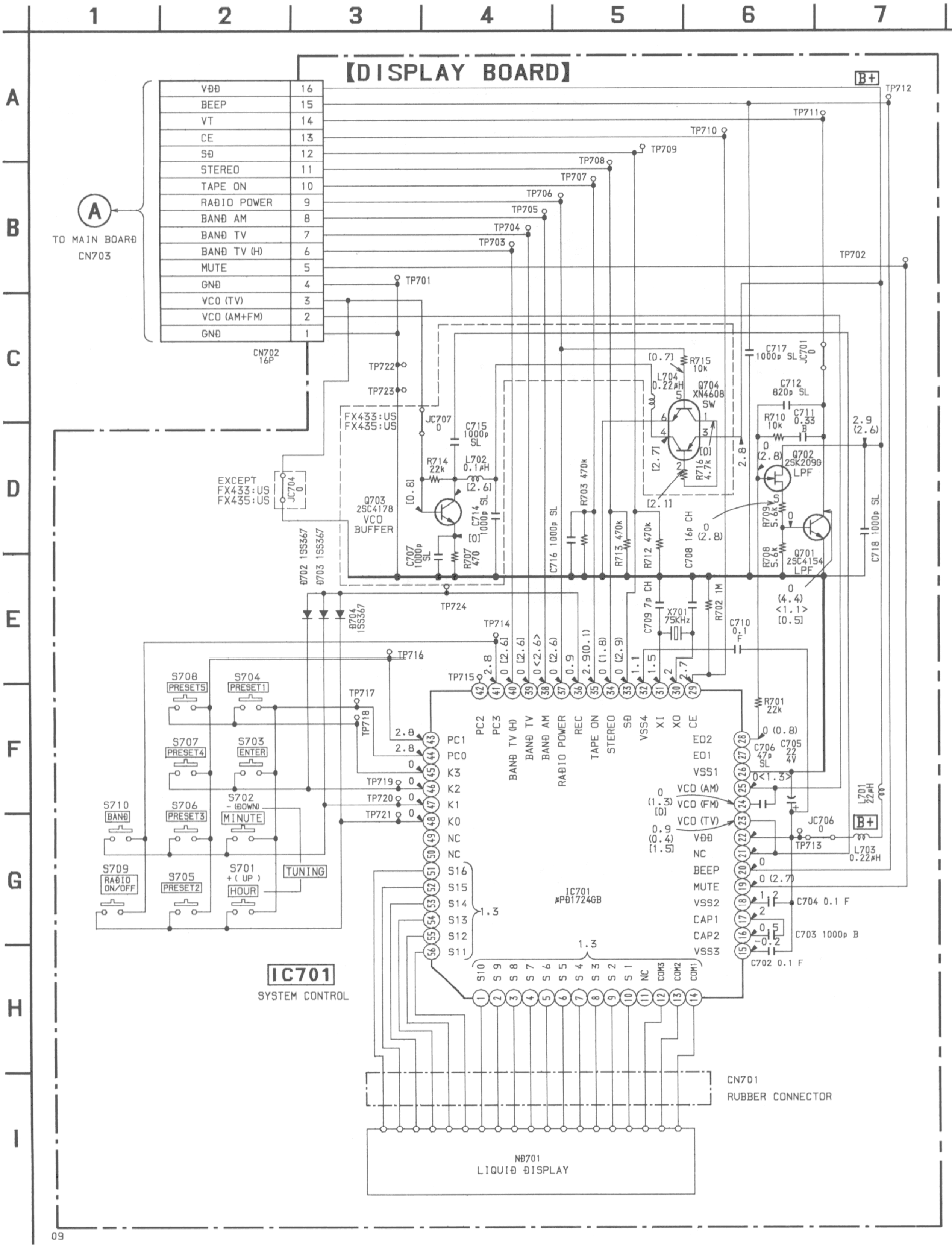
Ref. No.	Location
D1	C-9
D2	D-7
D3	D-13
D4	C-14
D5	C-14
D6	E-14
D7	C-9
D9	D-8
D10	D-8
D401	F-2
D402	G-2
D602	G-5
D701	B-21
IC1	C-8
IC2	D-15
IC301	C-19
IC302	E-18
IC601	E-21
IC702	B-7
Q1	B-10
Q2	D-7
Q3	B-8
Q4	C-8
Q6	D-17
Q7	D-8
Q8	D-9
Q9	C-12
Q10	B-7
Q12	E-16
Q13	E-15
Q14	D-8
Q15	G-14
Q101	D-18
Q201	C-18
Q301	C-2
Q302	C-3
Q303	C-6
Q304	C-4
Q305	B-4
Q306	F-16
Q307	G-14
Q308	D-3
Q309	D-3
Q310	C-2
Q311	F-18
Q401	E-1
Q402	E-1
Q601	G-5
Q602	F-5
Q603	D-2
Q604	C-2
Q605	D-22
Q606	D-20

Note:

- o—— : parts extracted from the component side.
- ● : Through hole.
- △ : internal component.
- ▨ : Pattern from the side which enable seeing.
- Abbreviation
  CND : Canadian model.

4-5. SCHEMATIC DIAGRAM — DISPLAY SECTION —

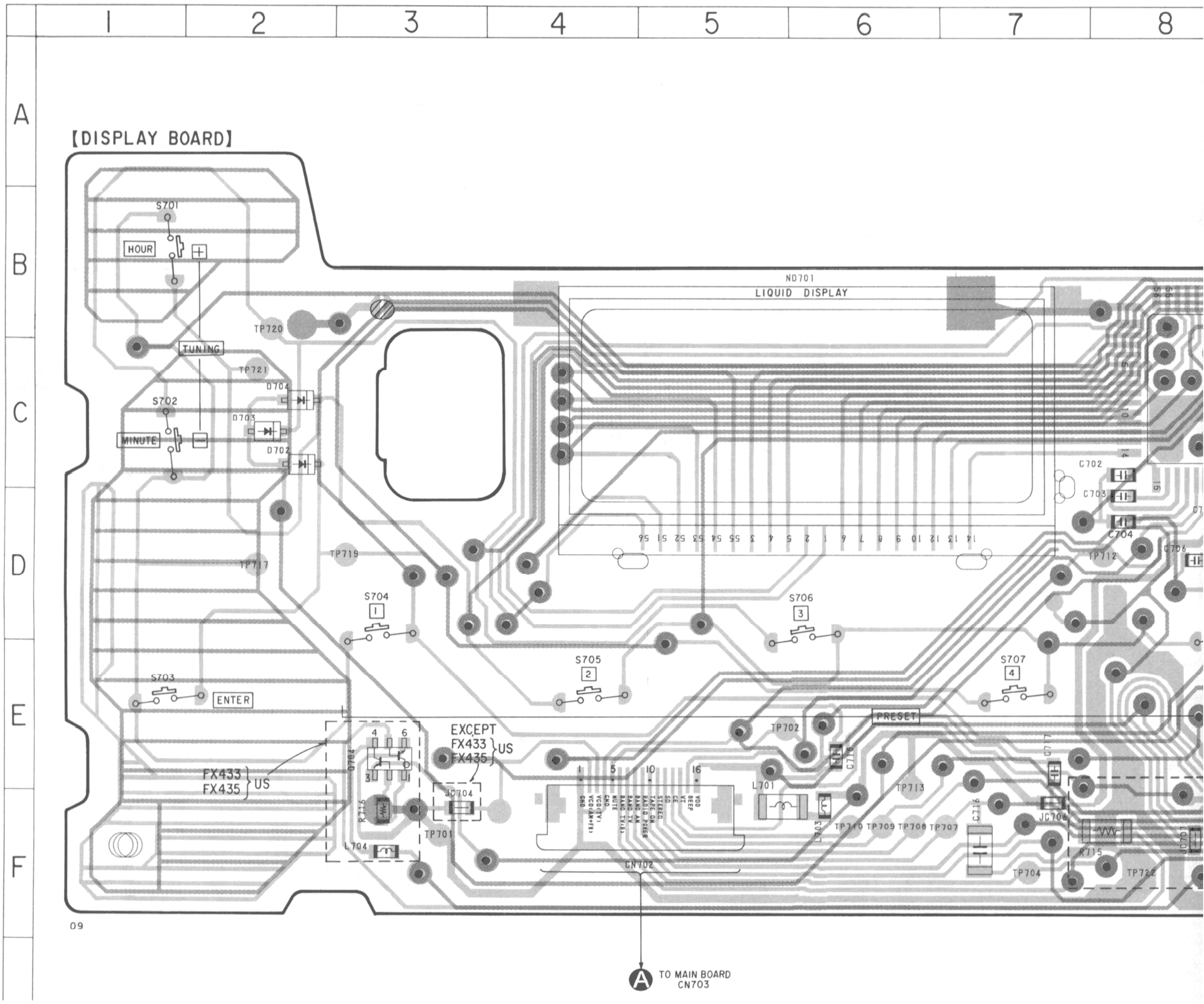
• See page 14 for IC Pin Function. (IC701)


1 2 3 4 5 6 7 8
A B C D E F G H I
[DISPLAY BOARD]
A TO MAIN BOARD CN703
VDD 16
BEEP 15
VT 14
CE 13
SD 12
STEREO 11
TAPE ON 10
RADIO POWER 9
BAND AM 8
BAND TV 7
BAND TV (H) 6
MUTE 5
GND 4
VCO (TV) 3
VCO (AM+FM) 2
GND 1
CN702 16P
B+
TP701 TP702 TP703 TP704 TP705 TP706 TP707 TP708 TP709 TP710 TP711 TP712
TP713 TP714 TP715 TP716 TP717 TP718 TP719 TP720 TP721 TP722 TP723 TP724
FX433:US FX435:US
EXCEPT FX433:US FX435:US
JC704 0
JC707 0
C715 1000p SL
R714 22k
L702 0.1μH
Q703 2SC4178 VCO BUFFER
C714 1000p SL
C707 1000p SL
R707 470
C716 1000p SL
R703 470k
R713 470k
R712 470k
C708 16p CH
C709 7p CH
X701 75KHz
R702 1M
C710 0.1 F
R715 10k
L704 0.22μH
Q704 XN4608 SW
R716 4.7k
C717 1000p SL
JC701 0
C712 820p SL
R710 10k
C711 0.33 B
Q702 2SK2090 LPF
R709 5.6k
R708 5.6k
Q701 2SC4154 LPF
C718 1000p SL
R701 22k
C706 47p SL
C705 22 4V
L701 22μH
JC706 0
L703 0.22μH
C704 0.1 F
C703 1000p B
C702 0.1 F
D702 1SS367
D703 1SS367
D704 1SS367
S708 PRESET5
S704 PRESET1
S707 PRESET4
S703 ENTER
S710 BAND
S706 PRESET3
S702 −(DOWN) MINUTE
S709 RADIO ON/OFF
S705 PRESET2
S701 +(UP) HOUR
TUNING
IC701 μPD1724GB
PC2 PC3 BAND TV (H) BAND TV BAND AM RADIO POWER REC TAPE ON STEREO SD VSS4 XI XO CE
PC1 PC0 K3 K2 K1 K0 NC NC S16 S15 S14 S13 S12 S11
EO2 EO1 VSS1 VCO (AM) VCO (FM) VCO (TV) VDD NC BEEP MUTE VSS2 CAP1 CAP2 VSS3
S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 NC COM3 COM2 COM1
1.3
CN701 RUBBER CONNECTOR
ND701 LIQUID DISPLAY
IC701 SYSTEM CONTROL
09

NOTE

- All capa
  50WV or
  and tant
- All resi
  specifie
- ☐
- B+
- Power vo
  power su
- Voltages
  under no
  no mark:
  ( ):
  < >:
  [ ]:
- Voltages
  Voltage
  tion tol

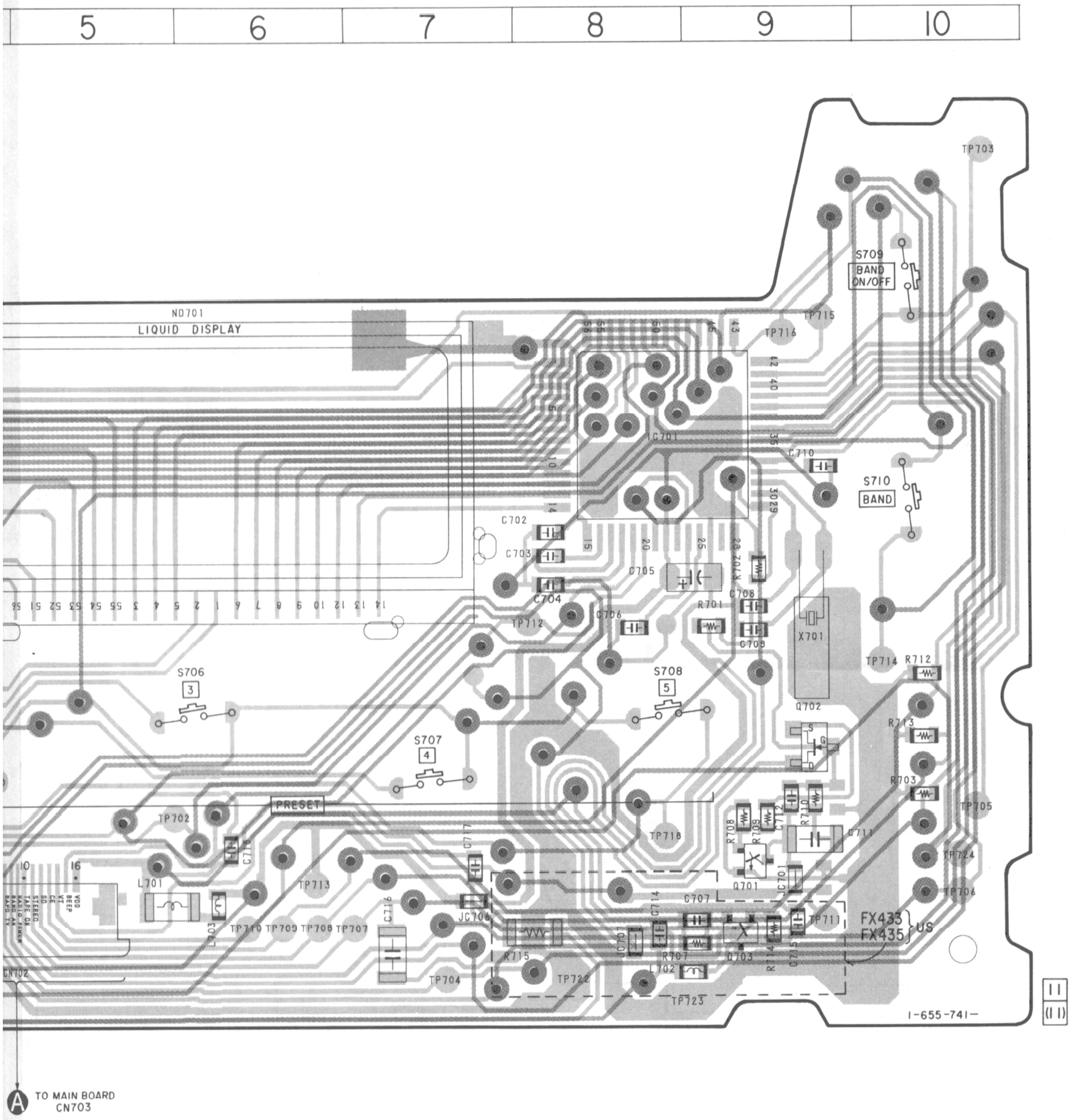
4-6. PRINTED WIRING BOARD —DISPLAY SECTION —



1
2
3
4
5
6
7
8
A
B
C
D
E
F
[DISPLAY BOARD]
S701
HOUR
+
TP720
TUNING
TP721
D704
S702
D703
MINUTE
−
D702
ND701
LIQUID DISPLAY
C702
C703
C704
TP712
TP717
TP719
S704
1
S706
3
S705
2
S707
4
S703
ENTER
PRESET
TP702
C716
C717
EXCEPT
FX433
FX435
US
FX433
FX435
US
IC704
JC704
R716
L704
TP701
CN702
L701
L703
TP713
TP710
TP709
TP708
TP707
C718
JC706
R715
TP704
TP722
09
TO MAIN BOARD
CN703
A

Note:

- ●
- ▨
- ▨


5
6
7
8
9
10
TP703
S709
BAND ON/OFF
TP715
TP716
ND701
LIQUID DISPLAY
IC701
C710
S710
BAND
C702
C703
C704
C705
C706
C708
C709
R701
X701
TP712
TP714
R712
R713
R703
S706
3
S708
5
S707
4
Q702
PRESET
TP702
TP705
TP718
TP713
TP724
TP706
L701
C716
C717
C714
C707
C701
Q701
Q703
R708
R709
R710
C712
C711
C713
C715
R714
R707
R715
L702
L703
JC706
TP710
TP709
TP708
TP707
TP704
TP722
TP723
TP711
FX433
FX435
US
CN702
1-655-741-
11
(11)
A
TO MAIN BOARD
CN703

- **Semiconductor Location**

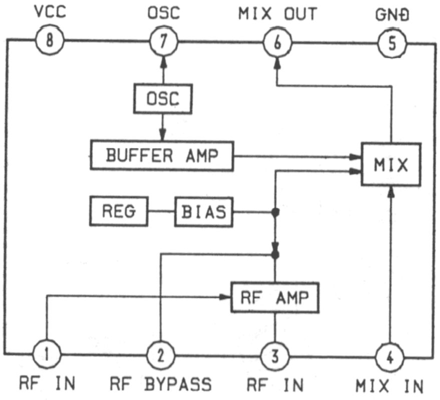
Ref. No.	Location
D702	C-2
D703	C-2
D704	C-2
IC701	C-8
Q701	E-9
Q702	D-9
Q703	F-9
Q704	E-3

Note:

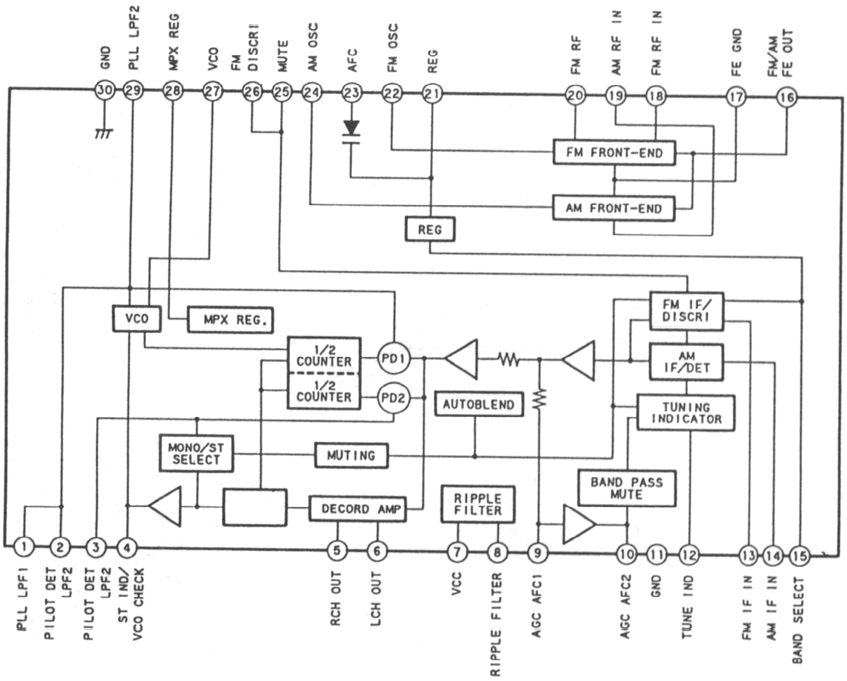
- ● : Through hole.
- ▨ : Pattern from the side which enable seeing.
- ▨ : Pattern of the rear side.

4-7. IC BLOCK DIAGRMS

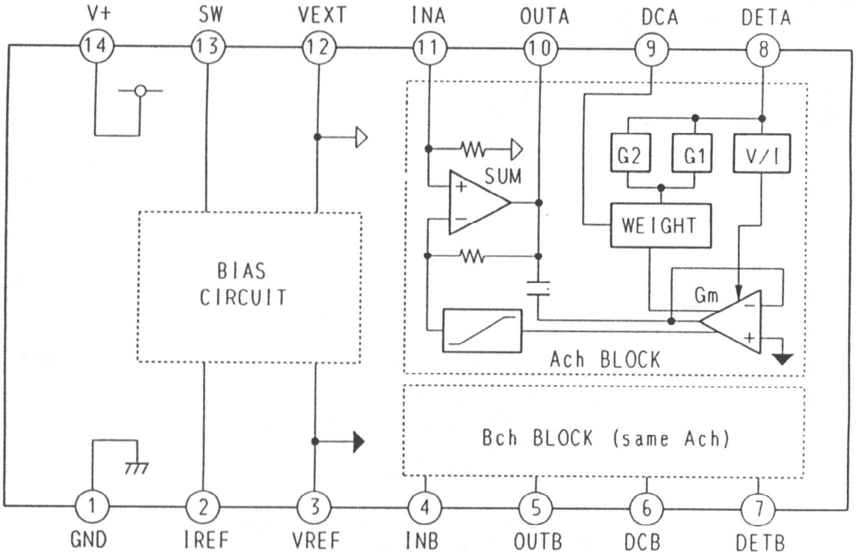
IC1 TA7358F


VCC
OSC
MIX OUT
GND
8
7
6
5
OSC
BUFFER AMP
MIX
REG
BIAS
RF AMP
1
2
3
4
RF IN
RF BYPASS
RF IN
MIX IN

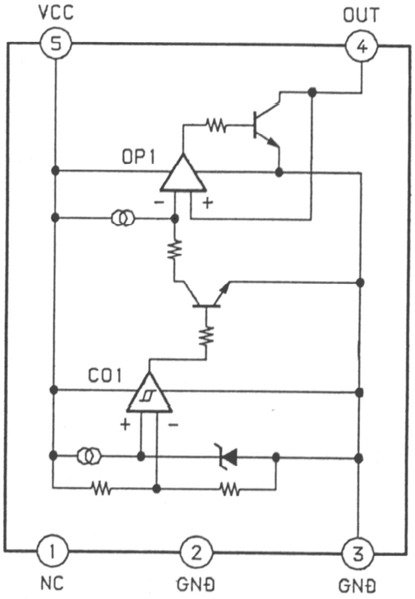
IC2 CX1538N


GND
PLL LPF2
MPX REG
VCO
FM DISCRI
MUTE
AM OSC
AFC
FM OSC
REG
FM RF
AM RF IN
FM RF IN
FE GND
FM/AM FE OUT
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
FM FRONT-END
AM FRONT-END
REG
VCO
MPX REG.
1/2 COUNTER
1/2 COUNTER
PD1
PD2
AUTOBLEND
FM IF/ DISCRI
AM IF/DET
TUNING INDICATOR
MONO/ST SELECT
MUTING
DECORD AMP
RIPPLE FILTER
BAND PASS MUTE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
PLL LPF1
PILOT DET LPF2
PILOT DET LPF2
ST IND/ VCO CHECK
RCH OUT
LCH OUT
VCC
RIPPLE FILTER
AGC AFC1
AGC AFC2
GND
TUNE IND
FM IF IN
AM IF IN
BAND SELECT

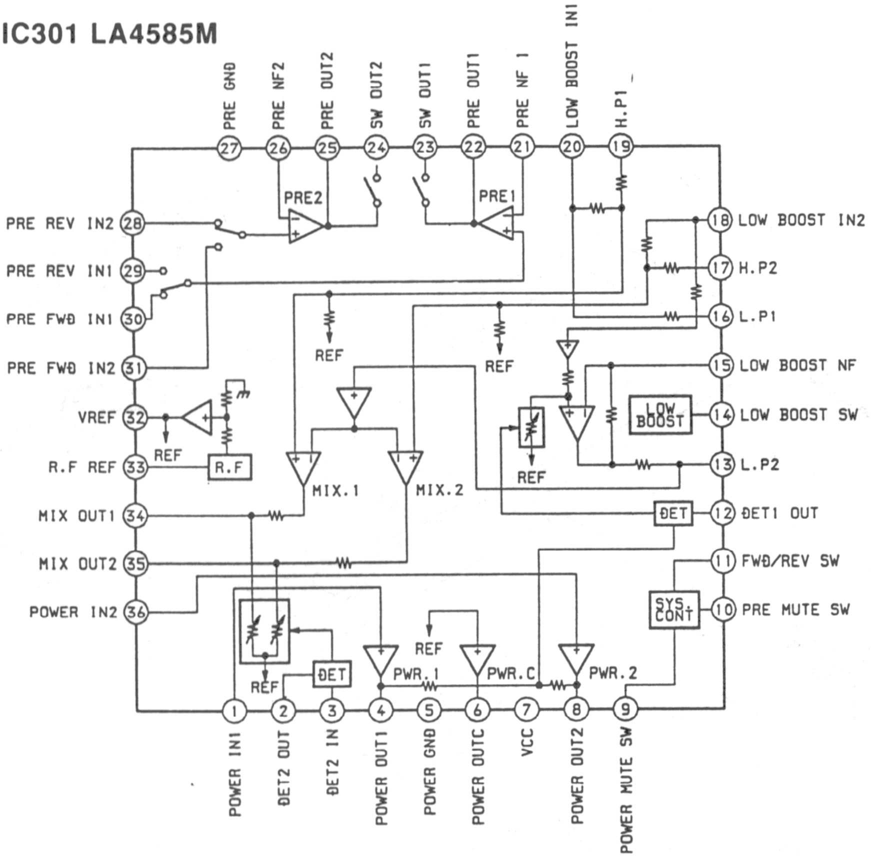
IC302 NJM2185V


V+
SW
VEXT
INA
OUTA
DCA
DETA
14
13
12
11
10
9
8
SUM
G2
G1
V/I
WEIGHT
Gm
BIAS CIRCUIT
Ach BLOCK
Bch BLOCK (same Ach)
1
2
3
4
5
6
7
GND
IREF
VREF
INB
OUTB
DCB
DETB

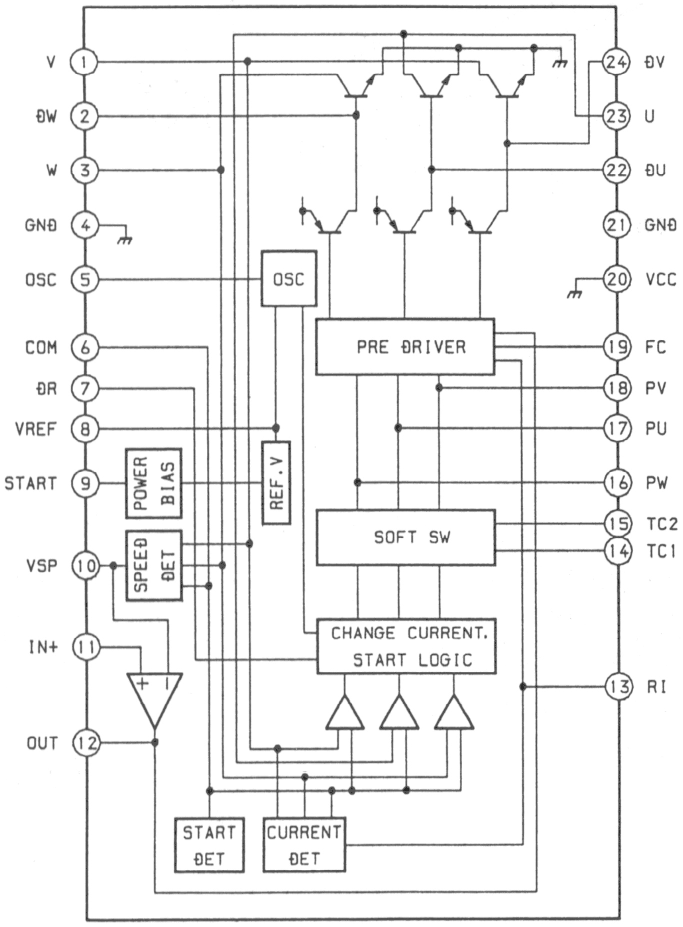
IC702 PST9119


VCC
OUT
5
4
OP1
CO1
1
2
3
NC
GND
GND

IC301 LA4585M

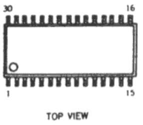

PRE GND
PRE NF2
PRE OUT2
SW OUT2
SW OUT1
PRE OUT1
PRE NF 1
LOW BOOST IN1
H.P1
PRE2
PRE1
PRE REV IN2
PRE REV IN1
PRE FWD IN1
PRE FWD IN2
VREF
R.F REF
MIX OUT1
MIX OUT2
POWER IN2
REF
R.F
MIX.1
MIX.2
LOW BOOST
DET
SYS. CONT
PWR.1
PWR.C
PWR.2
LOW BOOST IN2
H.P2
L.P1
LOW BOOST NF
LOW BOOST SW
L.P2
DET1 OUT
FWD/REV SW
PRE MUTE SW
POWER IN1
DET2 OUT
DET2 IN
POWER OUT1
POWER GND
POWER OUTC
VCC
POWER OUT2
POWER MUTE SW

IC601 LB1674V

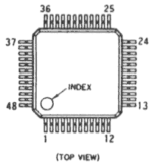

V
DW
W
GND
OSC
COM
DR
VREF
START
VSP
IN+
OUT
DV
U
DU
GND
VCC
FC
PV
PU
PW
TC2
TC1
RI
OSC
PRE DRIVER
POWER BIAS
REF.V
SPEED DET
SOFT SW
CHANGE CURRENT. START LOGIC
START DET
CURRENT DET

4-8. SEMICONDUCTOR LEAD LAYOUTS

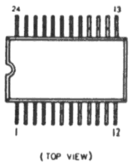
CXA1538N


30
16
1
15
TOP VIEW

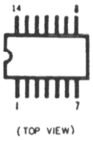
LA4585M


36
25
37
24
INDEX
48
13
1
12
(TOP VIEW)

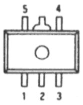
LB1674V


24
13
1
12
(TOP VIEW)

NJM2185V

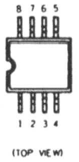

14
8
1
7
(TOP VIEW)

PST9119NL

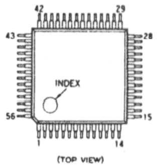


1. CONT
2. V_{SS}
3. ON/OFF
4. V_{IN}
5. V_{OUT}

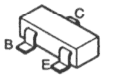
TA7358F-N


8 7 6 5
1 2 3 4
(TOP VIEW)

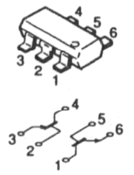
µPD1724GB-693-1A7


42
29
43
28
INDEX
56
15
1
14
(TOP VIEW)

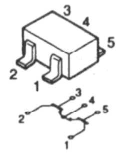
DTA114TKA
DTA114YKA
DTC114TKA
DTC143TKA
DTC143TUA
2SA1037AK-QR
2SB1295-UL5
2SB624-BV345
2SC4154-F
2SC4178-F14



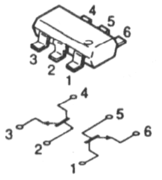
IMD6
XN4608


4
5
6
3
2
1
4
5
6
3
2
1

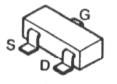
XN1215
XN1216
XN1501


3
4
5
2
1
3
4
5
2
1

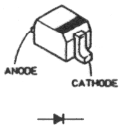
XN4501


4
5
6
3
2
1
4
5
6
3
2
1

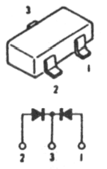
2SK209-G



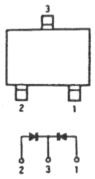
DTZ12
MA110
1T362
1SS332


ANODE
CATHODE

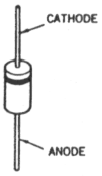
KV-1450



KV-1560



1SS367


CATHODE
ANODE

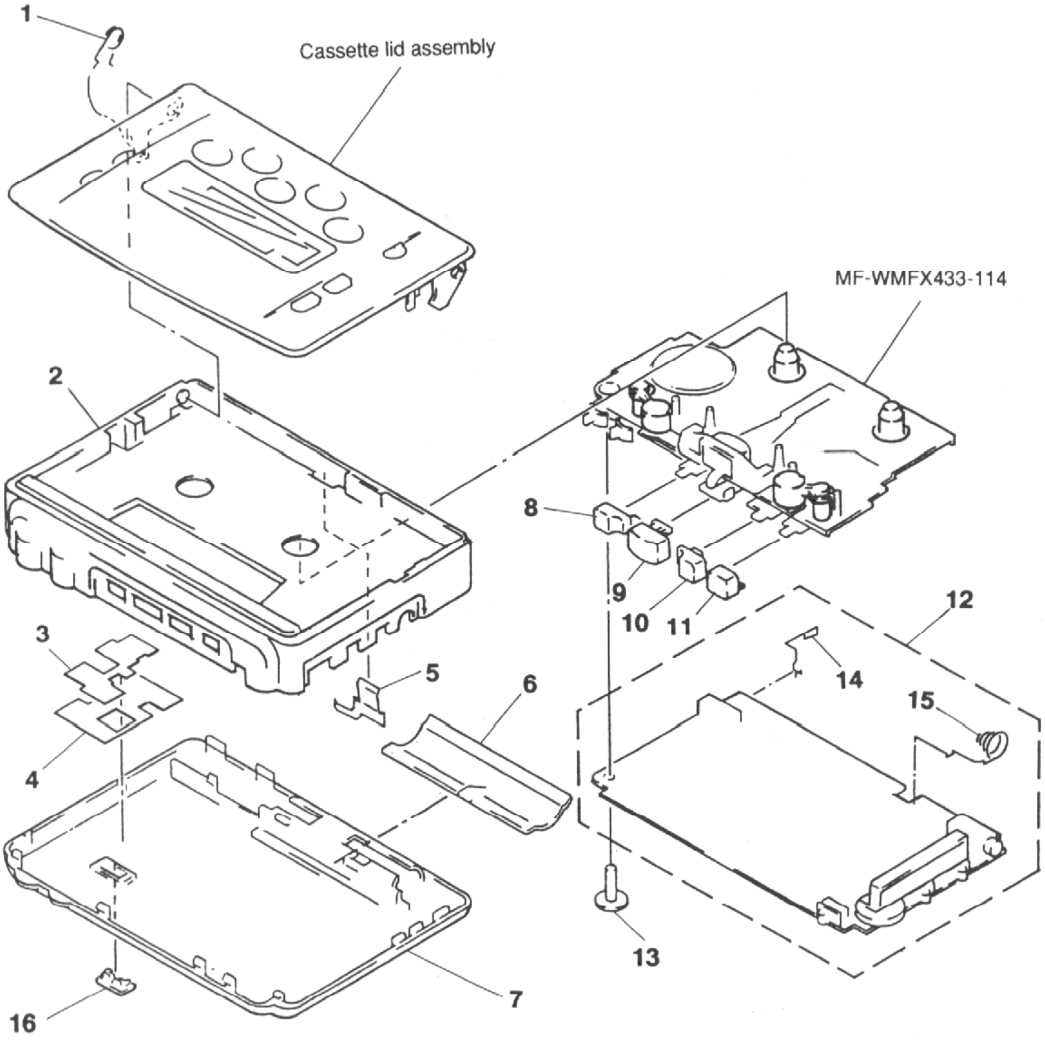
SECTION 5
EXPLODED VIEWS

NOTE:
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Abbreviation

CND : Canadian model
IT : Italian model
EE : East European model
EA : Saudi Arabia model

5-1. CABINET SECTION

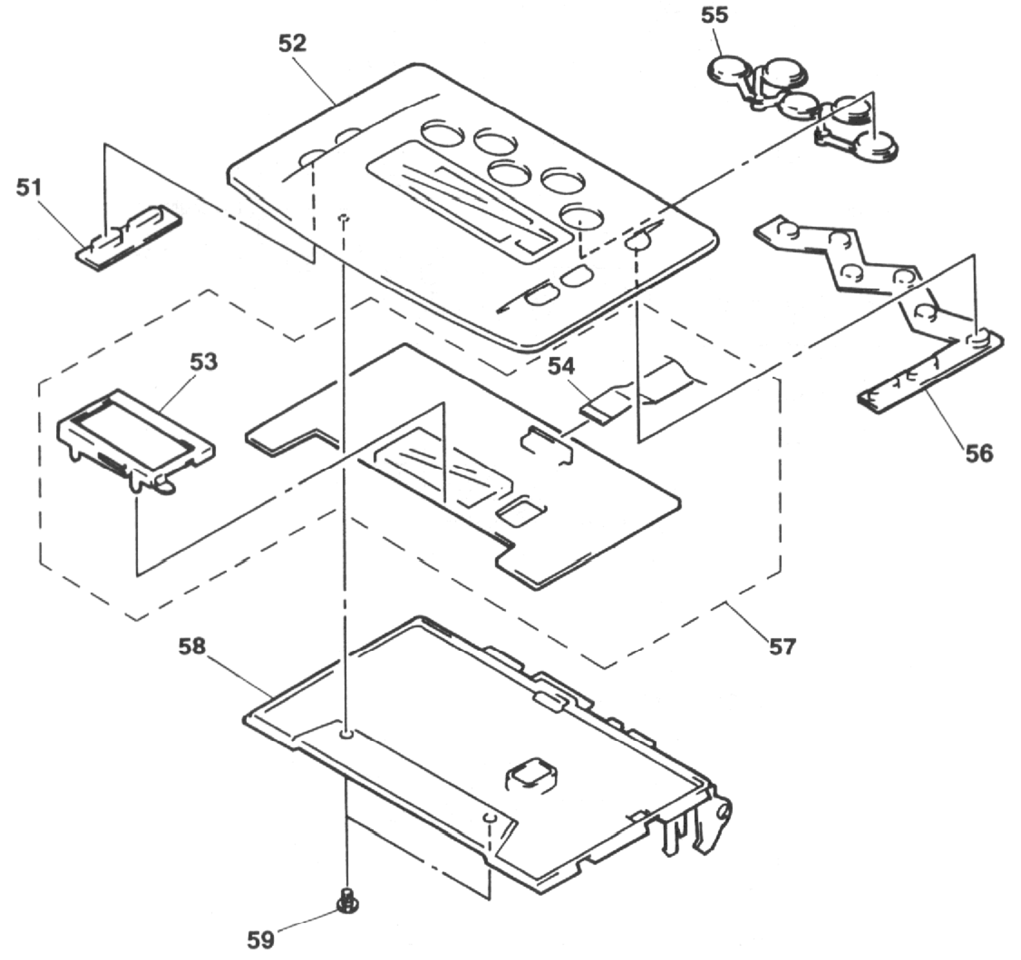


Ref. No.	Part No.	Description	Remark
1	3-921-954-01	SPRING (LID UP)	
2	3-922-109-01	CABINET (FRONT)(US, CND)	
2	3-922-109-11	CABINET (FRONT)(EXCEPT US, CND)	
* 3	3-922-837-01	SHEET, INSULATING	
4	3-921-953-01	PLATE, SHIELD	
5	3-364-675-01	SPRING (CASSETTE)	
6	3-921-963-01	LID, BATTERY CASE	
7	3-921-969-01	CABINET (REAR)	
8	3-921-960-01	BUTTON (REW)	
9	3-921-958-01	BUTTON (PLAY)	
10	3-921-959-01	BUTTON (FF)	
11	3-921-961-01	BUTTON (STOP)	
12	A-3016-669-A	MAIN BOARD, COMPLETE (FX435:US)	
12	A-3016-671-A	MAIN BOARD, COMPLETE (FX433:US)	
12	A-3016-673-A	MAIN BOARD, COMPLETE (FX435:AEP, UK, E, IT, EA)	
12	A-3016-674-A	MAIN BOARD, COMPLETE (FX435:CND)	
12	A-3016-675-A	MAIN BOARD, COMPLETE (FX433:EE)	
12	A-3016-677-A	MAIN BOARD, COMPLETE (FX433:AEP, UK, E, IT, EA)	
12	A-3016-679-A	MAIN BOARD, COMPLETE (FX433:CND)	
13	3-921-955-01	SCREW (M1.4), TOOTH (WH)	
14	3-921-956-01	TERMINAL (+), BATTERY	
15	3-921-957-01	TERMINAL (-), BATTERY	
16	3-921-950-01	KNOB (DOLBY)	

5-2.

Ref. No.
51
51
52
52
52
52
* 53
54
55

5-2. CASETTE LID (CF) SECTION



Ref. No.	Part No.	Description	Remark
51	3-921-962-01	BUTTON (BAND)(FX433:EXCEPT US/FX435)	
51	3-921-962-11	BUTTON (BAND)(FX433:US)	
52	3-921-970-01	LID (CF), CASSETTE (FX433:US)	
52	3-921-970-11	LID (CF), CASSETTE (FX433:EXCEPT US)	
52	3-921-970-21	LID (CF), CASSETTE (FX435:US)	
52	3-921-970-31	LID (CF), CASSETTE (FX435:EXCEPT US)	
* 53	3-921-964-01	CASE (LCD)	
54	1-655-731-11	TUNER FLEXIBLE BOARD	
55	3-921-965-01	BUTTON (TOP)	
56	3-921-972-01	BUTTON (PRESET)(FX433:EXCEPT US/FX435)	
56	3-921-972-11	BUTTON (PRESET)(FX433:US)	
57	A-3016-672-A	DISPLAY BOARD, COMPLETE (US)	
57	A-3016-676-A	DISPLAY BOARD, COMPLETE (FX433:EE)	
57	A-3016-678-A	DISPLAY BOARD, COMPLETE (AEP, UK, E, IT, EA)	
57	A-3016-680-A	DISPLAY BOARD, COMPLETE (CND)	
58	3-921-971-01	HOLDER, CASSETTE	
59	3-375-114-21	SCREW (M1.7X2.5)	

5-3.

Ref. No.
101
102
103
104
105
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109
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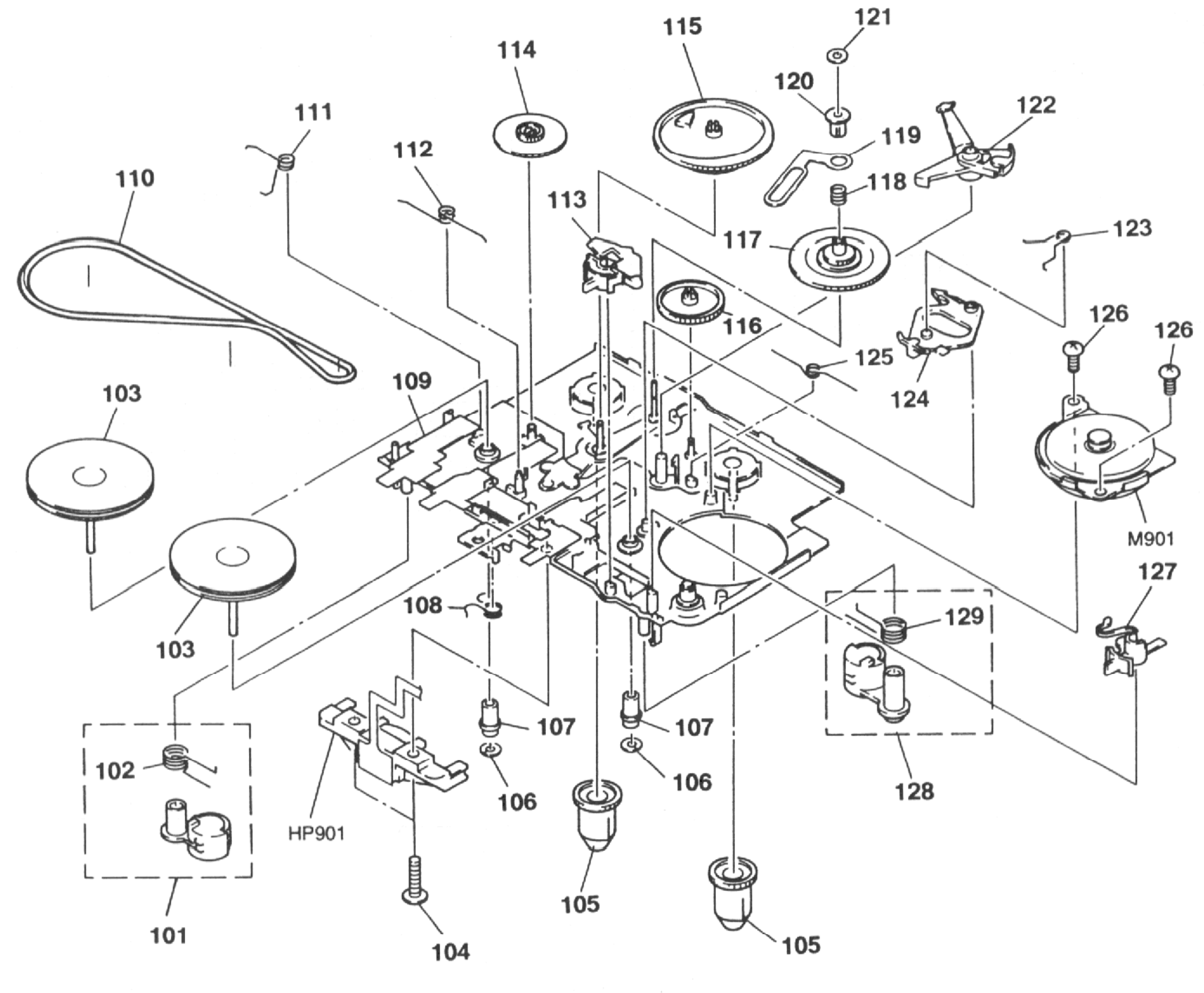
111
112
113
114
115
116

5-3. MECHANISM SECTION
(MF-WMFX433-114)


101
102
103
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106
107
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111
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114
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116
117
118
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121
122
123
124
125
126
126
127
128
129
HP901
M901

Ref. No.	Part No.	Description	Remark
101	X-3369-749-1	PINCH LEVER (N) ASSY	
102	3-920-996-01	SPRING (PINCH N)	
103	X-3369-747-1	WHEEL ASSY, CAPSTAN	
104	3-704-197-71	SCREW (M1.4X4.5), LOCKING	
105	3-921-042-01	GEAR (REEL)	
106	3-921-797-01	WASHER	
107	3-921-003-01	BEARING	
108	3-920-993-01	SPRING (NR)	
109	X-3369-753-1	CHASSIS ASSY	
110	3-921-000-01	BELT	
111	3-920-992-01	SPRING (STOP)	
112	3-920-991-01	SPRING (FR)	
113	3-921-053-01	LEVER, D SELECTION	
114	3-921-043-01	GEAR (D)	
115	X-3369-752-1	CLUTCH ASSY	
116	3-920-999-01	GEAR (A)	
117	3-921-050-01	GEAR (B)	
118	3-920-990-01	SPRING (UD), COMPRESSION	
119	3-921-335-01	WASHER, LEVER	
120	3-923-530-01	SLEEVE (M)	
121	3-728-091-01	WASHER, STOPPER	
122	3-921-052-01	LEVER (A), DETECTION	
123	3-920-994-01	SPRING (D SELECTION)	
124	3-921-022-01	LEVER (B), DETECTION	
125	3-920-995-01	SPRING (PLAY)	
126	3-703-816-31	SCREW (M1.4X1.6), SPECIAL HEAD	
127	3-921-023-01	LEVER, M SELECTION	
128	X-3369-748-1	PINCH LEVER (R) ASSY	
129	3-920-997-01	SPRING (PINCH R)	
HP901	1-500-205-11	PLAYBACK HEAD	
M901	1-698-457-11	MOTOR	

SECTION 6
ELECTRICAL PARTS LIST

DISPLAY

NOTE:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Abbreviation
  CND : Canadian model
  IT : Italian model
  EE : East European model
  EA : Saudi Arabia model

Ref. No.	Part No.	Description	Remark
	A-3016-672-A	DISPLAY BOARD, COMPLETE (US)	
		*****************************	
	A-3016-676-A	DISPLAY BOARD, COMPLETE (FX433:EE)	
		************************************	
	A-3016-678-A	DISPLAY BOARD, COMPLETE (AEP, UK, IT, E, EA)	
		**	
	A-3016-680-A	DISPLAY BOARD, COMPLETE (CND)	
		*******************************	
	1-655-731-11	TUNER FLEXIBLE BOARD	
*	3-921-964-01	CASE (LCD)	
		< CAPACITOR >	
C702	1-164-360-11	CERAMIC CHIP 0.1uF 16V	
C703	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C704	1-164-360-11	CERAMIC CHIP 0.1uF 16V	
C705	1-104-847-11	TANTAL. CHIP 22uF 20% 4V	
C706	1-162-949-11	CERAMIC CHIP 47PF 5% 50V	
C707	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	(US)
C708	1-164-237-11	CERAMIC CHIP 16PF 5% 50V	
C709	1-162-912-11	CERAMIC CHIP 7PF 0.5PF 50V	
C710	1-164-360-11	CERAMIC CHIP 0.1uF 16V	
C711	1-162-568-11	CERAMIC CHIP 0.33uF 10% 16V	
C712	1-164-473-11	CERAMIC CHIP 820PF 10% 50V	
C714	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	(US)
C715	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	(US)
C716	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C717	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C718	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
		< CONNECTOR >	
CN701	1-537-863-11	CONDUCTIVE BOARD, CONNECTION	
CN702	1-766-584-11	CONNECTOR, FPC (ZIF) 16P	
		< DIODE >	
D702	8-719-049-01	DIODE 1SS367	
D703	8-719-049-01	DIODE 1SS367	
D704	8-719-049-01	DIODE 1SS367	
		< IC >	
IC701	8-759-336-40	IC uPD1724GB-693-1A7	
		< JUMPER RESISTOR >	
JC701	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC704	1-216-864-11	METAL CHIP 0 5% 1/16W	(EXCEPT US)
JC706	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC707	1-216-864-11	METAL CHIP 0 5% 1/16W	(US)
		< COIL >	
L701	1-410-946-31	INDUCTOR CHIP 22uH	
L702	1-412-967-31	INDUCTOR 0.1uH	(US)
L703	1-412-971-31	INDUCTOR CHIP 0.22uH	
L704	1-412-971-31	INDUCTOR CHIP 0.22uH	(US)
		< LIQUID CRYSTAL DISPLAY >	
ND701	1-810-797-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< TRANSISTOR >	
Q701	8-729-602-21	TRANSISTOR 2SC4154-F	
Q702	8-729-220-93	TRANSISTOR 2SK209-G	
Q703	8-729-117-73	TRANSISTOR 2SC4178-F14	(US)
Q704	8-729-402-16	TRANSISTOR XN4608	(US)
		< RESISTOR >	
R701	1-126-837-11	METAL CHIP 22K 5% 1/16W	
R702	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R703	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R707	1-216-817-11	METAL CHIP 470 5% 1/16W	(US)
R708	1-216-830-11	METAL CHIP 5.6K 5% 1/16W	
R709	1-216-830-11	METAL CHIP 5.6K 5% 1/16W	
R710	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R712	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R713	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R714	1-126-837-11	METAL CHIP 22K 5% 1/16W	(US)
R715	1-216-833-11	METAL CHIP 10K 5% 1/16W	(US)
R716	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	(US)
		< VIBRATOR >	
X701	1-760-666-11	VIBRATOR, CRYSTAL (75kHz)	

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MAIN

Ref. No.	Part No.	Description				Remark
	A-3016-669-A	MAIN BOARD, COMPLETE (FX435:US) ********************************				
	A-3016-671-A	MAIN BOARD, COMPLETE (FX433:US) ********************************				
	A-3016-673-A	MAIN BOARD, COMPLETE ********************				(FX435:AEP, UK, E, IT, EA)
	A-3016-674-A	MAIN BOARD, COMPLETE (FX435:CND) *********************************				
	A-3016-675-A	MAIN BOARD, COMPLETE (FX433:EE) ********************************				
	A-3016-677-A	MAIN BOARD, COMPLETE ********************				(FX433:AEP, UK, E, IT, EA)
	A-3016-679-A	MAIN BOARD, COMPLETE (FX433:CND) *********************************				
	3-921-956-01	TERMINAL (+), BATTERY				
	3-921-957-01	TERMINAL (-), BATTERY				
		< CAPACITOR >				
C1	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	(US, CND)
C2	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	(US, CND)
C3	1-162-936-11	CERAMIC CHIP	5PF	0.25PF	50V	(US)
C4	1-162-936-11	CERAMIC CHIP	5PF	0.25PF	50V	
C5	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	(US)
C6	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	(US)
C7	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V	(US)
C8	1-162-935-11	CERAMIC CHIP	4PF	0.25PF	50V	(US)
C9	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	(US)
C10	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V	(US)
C11	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V	(US)
C12	1-162-943-11	CERAMIC CHIP	15PF	5%	50V	(US)
C13	1-164-378-11	CERAMIC CHIP	30PF	5%	50V	(US)
C14	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V	
C15	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	(US)
C16	1-162-949-11	CERAMIC CHIP	47PF	5%	50V	(US)
C17	1-109-934-11	TANTAL. CHIP	4.7uF	20%	4V	
C18	1-135-208-11	TANTAL. CHIP	1uF	20%	10V	
C19	1-135-201-11	TANTALUM CHIP	10uF	20%	4V	
C20	1-124-434-00	ELECT	220uF	20%	4V	
C21	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V	
C22	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V	
C23	1-164-005-11	CERAMIC CHIP	0.47uF		25V	
C24	1-164-005-11	CERAMIC CHIP	0.47uF		25V	
C25	1-164-346-11	CERAMIC CHIP	1uF		16V	
C26	1-109-934-11	TANTAL. CHIP	4.7uF	20%	4V	
C27	1-165-320-11	CERAMIC CHIP	0.47uF	10%	16V	
C28	1-126-157-11	ELECT	10uF	20%	16V	
C29	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	
C30	1-162-943-11	CERAMIC CHIP	15PF	5%	50V	
C31	1-164-145-11	CERAMIC CHIP	390PF	5%	50V	
C32	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C33	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C34	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C35	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C36	1-162-932-11	CERAMIC CHIP	2PF	0.25PF	50V	
C37	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C38	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V	
C39	1-162-934-11	CERAMIC CHIP	3PF	0.25PF	50V	
C40	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V	
C41	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	
C42	1-162-930-11	CERAMIC CHIP	1PF	0.25PF	50V	(US)
C43	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V	
C44	1-126-162-11	ELECT	3.3uF	20%	50V	
C45	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C46	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C47	1-164-005-11	CERAMIC CHIP	0.47uF		25V	
C48	1-164-005-11	CERAMIC CHIP	0.47uF		25V	
C49	1-104-847-11	TANTAL. CHIP	22uF	20%	4V	(US)
C50	1-162-638-11	CERAMIC CHIP	1uF		16V	
C51	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	(US)
C52	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V	
C53	1-104-847-11	TANTAL. CHIP	22uF	20%	4V	
C54	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V	
C55	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C56	1-162-953-11	CERAMIC CHIP	100PF	5%	50V	
C57	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V	
C58	1-163-077-00	CERAMIC CHIP	0.1uF		50V	
C59	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C60	1-162-953-11	CERAMIC CHIP	100PF	5%	50V	(US)
C61	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V	(US)
C62	1-162-949-11	CERAMIC CHIP	47PF	5%	50V	
C63	1-162-953-11	CERAMIC CHIP	100PF	5%	50V	
C65	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V	
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C102	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C103	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C104	1-126-157-11	ELECT	10uF	20%	16V	
C105	1-164-346-11	CERAMIC CHIP	1uF		16V	
C106	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V	
C107	1-164-346-11	CERAMIC CHIP	1uF		16V	
C108	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C109	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V	(FX435)
C110	1-164-505-11	CERAMIC CHIP	2.2uF		16V	(FX435)

MAIN

Ref. No.	Part No.	Description			Remark
C111	1-164-346-11	CERAMIC CHIP	1uF		16V (FX435)
C201	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C202	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C203	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C204	1-126-157-11	ELECT	10uF	20%	16V
C205	1-164-346-11	CERAMIC CHIP	1uF		16V
C206	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C207	1-164-346-11	CERAMIC CHIP	1uF		16V
C208	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C209	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V (FX435)
C210	1-164-505-11	CERAMIC CHIP	2.2uF		16V (FX435)
C211	1-164-346-11	CERAMIC CHIP	1uF		16V (FX435)
C301	1-164-346-11	CERAMIC CHIP	1uF		16V
C302	1-109-934-11	TANTAL. CHIP	4.7uF	20%	4V
C303	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C304	1-164-346-11	CERAMIC CHIP	1uF		16V
C305	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C306	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C307	1-126-162-11	ELECT	3.3uF	20%	50V
C308	1-163-077-00	CERAMIC CHIP	0.1uF		50V
C309	1-126-153-11	ELECT	22uF	20%	6.3V
C310	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C311	1-126-160-11	ELECT	1uF	20%	50V
C312	1-126-153-11	ELECT	22uF	20%	6.3V
C313	1-135-201-11	TANTALUM CHIP	10uF	20%	4V (FX435)
C314	1-135-201-11	TANTALUM CHIP	10uF	20%	4V (FX435)
C315	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (FX435)
C316	1-164-005-11	CERAMIC CHIP	0.47uF		25V (FX435)
C317	1-126-153-11	ELECT	22uF	20%	6.3V
C318	1-162-638-11	CERAMIC CHIP	1uF		16V
C319	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C320	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C321	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C322	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C323	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C324	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C325	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C326	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C401	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C402	1-162-935-11	CERAMIC CHIP	4PF	0.25PF	50V
C403	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C404	1-162-941-11	CERAMIC CHIP	10PF	0.5PF	50V
C405	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C406	1-164-346-11	CERAMIC CHIP	1uF		16V
C407	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C408	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C602	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C603	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C604	1-165-320-11	CERAMIC CHIP	0.47uF	10%	16V
C605	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C608	1-124-434-00	ELECT	220uF	20%	4V
C609	1-164-346-11	CERAMIC CHIP	1uF		16V
C611	1-109-934-11	TANTAL. CHIP	4.7uF	20%	4V
C701	1-125-639-11	DOUBLE LAYERS	56000uF		3.5V

< FILTER >

Ref. No.	Part No.	Description
CF1	1-579-823-21	FILTER, CERAMIC (450kHz)
CF2	1-579-974-11	FILTER, CERAMIC (10.7MHz)
CF3	1-579-974-11	FILTER, CERAMIC (10.7MHz)

< CONNECTOR >

Ref. No.	Part No.	Description
CN301	1-766-819-11	CONNECTOR, FPC (ZIF) 6P
CN703	1-766-584-11	CONNECTOR, FPC (ZIF) 16P

< TRIMMER >

Ref. No.	Part No.	Description
CT1	1-141-327-11	CAP, VAR, TRIMMER (CHIP TYPE) 10P (US)
CT2	1-141-463-11	CAP, ADJ 10P

< DIODE >

Ref. No.	Part No.	Description	
D1	8-713-100-11	DIODE	1T362 (US)
D2	8-713-100-11	DIODE	1T362 (US)
D3	8-719-951-05	DIODE	KV1560
D4	8-719-981-25	DIODE	KV1450
D5	8-719-981-25	DIODE	KV1450
D6	8-719-049-09	DIODE	1SS367 (US)
D7	8-719-404-46	DIODE	MA110 (US)
D9	8-719-977-34	DIODE	DTZ12
D10	8-719-049-09	DIODE	1SS367 (US)
D401	8-719-404-46	DIODE	MA110
D402	8-719-977-34	DIODE	DTZ12
D602	8-719-049-09	DIODE	1SS367
D701	8-719-049-09	DIODE	1SS367

< IC >

Ref. No.	Part No.	Description	
IC1	8-759-339-49	IC	TA7358F-N (US)
IC2	8-752-072-12	IC	CXA1538N
IC301	8-759-332-69	IC	LA4585M
IC302	8-759-275-48	IC	NJM2185V (FX435)
IC601	8-759-275-47	IC	LB1674V
IC702	8-759-339-16	IC	PST9119NL

MAIN

Ref. No.	Part No.	Description	Remark
		< JACK >	
J301	1-565-287-11	JACK (🎧)	
J302	1-750-061-11	JACK, DC(POLARITY UNIFIED TYPE)(DC IN 3V)	
		< JUMPER RESISTOR >	
JC1	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC2	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC3	1-216-296-00	METAL CHIP 0 5% 1/8W	
JC4	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC5	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC6	1-216-864-11	METAL CHIP 0 5% 1/16W	(US)
JC7	1-216-296-00	METAL CHIP 0 5% 1/8W	
JC8	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC9	1-216-296-00	METAL CHIP 0 5% 1/8W	
JC11	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC12	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC101	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC201	1-216-296-00	METAL CHIP 0 5% 1/8W	
JC301	1-216-295-00	METAL CHIP 0 5% 1/10W	
JC702	1-216-864-11	METAL CHIP 0 5% 1/16W	(FX433:AEP, UK, E, IT, EA, EE/FX435:AEP, UK, E, IT, EA)
JC703	1-216-864-11	METAL CHIP 0 5% 1/16W	(FX433:CND, AEP, UK, E, IT, EA, EE/FX435:CND, AEP, UK, E, IT, EA)
JC705	1-216-295-00	METAL CHIP 0 5% 1/10W	(US)
		< COIL >	
L1	1-412-967-31	INDUCTOR 0.1uH	(US)
L2	1-412-967-31	INDUCTOR 0.1uH	
L3	1-411-207-11	COIL, TV RF	(US)
L4	1-411-208-11	COIL, TV OSC	(US)
L5	1-412-983-31	INDUCTOR 2.2uH	(US)
L6	1-411-205-11	COIL, AM OSC	
L7	1-501-759-11	ANTENNA, FERRITE-ROD	
L8	1-411-203-11	COIL, FM OSC	
L9	1-411-204-11	COIL, FM RF	
L10	1-412-987-31	INDUCTOR 4.7uH	
L11	1-412-987-31	INDUCTOR 4.7uH	(US)
L101	1-412-002-31	INDUCTOR CHIP 4.7uH	
L201	1-412-002-31	INDUCTOR CHIP 4.7uH	
L301	1-412-002-31	INDUCTOR CHIP 4.7uH	
L302	1-412-983-31	INDUCTOR 2.2uH	
L401	1-410-204-31	INDUCTOR CHIP 10uH	
		< TRANSISTOR >	
Q1	8-729-029-10	TRANSISTOR DTC143TUA	(US, CND)
Q2	8-729-402-16	TRANSISTOR XN4608	(US)
Q3	8-729-117-73	TRANSISTOR 2SC4178-F14	(US)
Q4	8-729-117-73	TRANSISTOR 2SC4178-F14	(US)
Q6	8-729-027-56	TRANSISTOR DTC143TKA	

Ref. No.	Part No.	Description	Remark
Q7	8-729-117-73	TRANSISTOR 2SC4178-F14	
Q8	8-729-117-73	TRANSISTOR 2SC4178-F14	
Q9	8-729-807-86	TRANSISTOR 2SB1295-UL5	(US)
Q10	8-729-402-16	TRANSISTOR XN4608	
Q12	8-729-402-81	TRANSISTOR XN4501	
Q13	8-729-027-56	TRANSISTOR DTC143TKA	
Q14	8-729-029-10	TRANSISTOR DTC143TUA	
Q15	8-729-925-52	TRANSISTOR IMD6	
Q101	8-729-027-56	TRANSISTOR DTC143TKA	
Q201	8-729-027-56	TRANSISTOR DTC143TKA	
Q301	8-729-402-13	TRANSISTOR XN1501	
Q302	8-729-807-86	TRANSISTOR 2SB1295-UL5	
Q303	8-729-027-56	TRANSISTOR DTC143TKA	
Q304	8-729-027-44	TRANSISTOR DTC114TKA	
Q305	8-729-027-26	TRANSISTOR DTA114YKA	
Q306	8-729-027-24	TRANSISTOR DTA114TKA	
Q307	8-729-421-23	TRANSISTOR XN1216	
Q308	8-729-027-44	TRANSISTOR DTC114TKA	
Q309	8-729-027-44	TRANSISTOR DTC114TKA	
Q310	8-729-027-44	TRANSISTOR DTC114TKA	
Q311	8-729-027-44	TRANSISTOR DTC114TKA	(FX435)
Q401	8-729-602-21	TRANSISTOR 2SC4154-F	
Q402	8-729-602-21	TRANSISTOR 2SC4154-F	
Q601	8-729-026-50	TRANSISTOR 2SA1037AK-QR	
Q602	8-729-029-10	TRANSISTOR DTC143TUA	
Q603	8-729-027-26	TRANSISTOR DTA114YKA	
Q604	8-729-029-10	TRANSISTOR DTC143TUA	
Q605	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q606	8-729-141-48	TRANSISTOR 2SB624-BV345	
		< RESISTOR >	
R1	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	(US, CND)
R2	1-216-813-11	METAL CHIP 220 5% 1/16W	(US)
R3	1-216-833-11	METAL CHIP 10K 5% 1/16W	(US)
R4	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	(US)
R5	1-216-845-11	METAL CHIP 100K 5% 1/16W	(US)
R6	1-216-845-11	METAL CHIP 100K 5% 1/16W	(US)
R7	1-216-833-11	METAL CHIP 10K 5% 1/16W	(US)
R8	1-216-813-11	METAL CHIP 220 5% 1/16W	(US)
R9	1-216-833-11	METAL CHIP 10K 5% 1/16W	(US)
R10	1-216-821-11	METAL CHIP 1K 5% 1/16W	(US)
R11	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	(US)
R14	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R15	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R16	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R17	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R18	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R19	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R20	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R22	1-216-813-11	METAL CHIP 220 5% 1/16W	
R23	1-216-821-11	METAL CHIP 1K 5% 1/16W	

MAIN

Ref. No.	Part No.	Description	Remark
R24	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R25	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R26	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R27	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R28	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R29	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R30	1-216-817-11	METAL CHIP 470 5% 1/16W	
R31	1-216-809-11	METAL CHIP 100 5% 1/16W	
R33	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R34	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R35	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R36	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R37	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R38	1-216-841-11	METAL CHIP 47K 5% 1/16W	(US)
R41	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R42	1-216-817-11	METAL CHIP 470 5% 1/16W	
R43	1-216-817-11	METAL CHIP 470 5% 1/16W	
R44	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R45	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R46	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R47	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R48	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R49	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R50	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R51	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R101	1-216-117-00	METAL CHIP 680K 5% 1/10W	
R102	1-216-190-00	METAL GLAZE 470 5% 1/8W	(FX433:US)
R102	1-216-194-00	METAL CHIP 680 5% 1/8W	(EXCEPT FX433:US)
R103	1-216-835-11	METAL CHIP 15K 5% 1/16W	
R104	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R105	1-216-238-11	METAL GLAZE 47K 5% 1/8W	(EXCEPT US)
R105	1-216-248-00	METAL GLAZE 120K 5% 1/8W	(FX435:US)
R105	1-216-258-00	METAL GLAZE 330K 5% 1/8W	(FX433:US)
R106	1-216-311-00	METAL CHIP 6.8 5% 1/10W	
R107	1-216-049-00	METAL CHIP 1K 5% 1/10W	(FX433:US)
R107	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	(EXCEPT FX433:US)
R201	1-216-117-00	METAL CHIP 680K 5% 1/10W	
R202	1-216-190-00	METAL GLAZE 470 5% 1/8W	(FX433:US)
R202	1-216-194-00	METAL CHIP 680 5% 1/8W	(EXCEPT FX433:US)
R203	1-216-835-11	METAL CHIP 15K 5% 1/16W	
R204	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R205	1-216-238-11	METAL GLAZE 47K 5% 1/8W	(EXCEPT US)
R205	1-216-248-00	METAL GLAZE 120K 5% 1/8W	(FX435:US)
R205	1-216-258-00	METAL GLAZE 330K 5% 1/8W	(FX433:US)
R206	1-216-311-00	METAL CHIP 6.8 5% 1/10W	
R207	1-216-049-00	METAL CHIP 1K 5% 1/10W	(FX433:US)
R207	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	(EXCEPT FX433:US)

Ref. No.	Part No.	Description	Remark
R301	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R302	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R303	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R304	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R305	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R306	1-216-045-00	METAL CHIP 680 5% 1/10W	
R307	1-216-688-11	METAL CHIP 36K 0.5% 1/10W	(FX435)
R308	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R309	1-216-089-00	METAL CHIP 47K 5% 1/10W	(FX435)
R310	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R311	1-216-298-00	METAL CHIP 2.2 5% 1/10W	
R312	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R313	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R314	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R401	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R402	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R403	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R404	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R405	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R601	1-216-049-11	METAL GLAZE 1K 5% 1/10W	
R602	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R603	1-216-033-00	METAL CHIP 220 5% 1/10W	
R604	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R605	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R608	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R609	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R610	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R611	1-216-809-11	METAL CHIP 100 5% 1/16W	
R612	1-216-809-11	METAL CHIP 100 5% 1/16W	
		< VARIABLE RESISTOR >	
RV1	1-223-587-11	RES, ADJ, CARBON 22K	
RV301	1-223-860-11	RES, VAR, CARBON 10K/10K (VOL ◢)	
RV601	1-238-663-11	RES, ADJ, CARBON 4.7K	
		< SWITCH >	
S301	1-762-302-11	SWITCH, PUSH (1 KEY)(TAPE POWER)	
S302	1-572-288-11	SWITCH, PUSH (F/R DET)	
S303	1-692-901-11	SWITCH, SLIDE (CrO2/METAL, NORM, LOCAL, DX, MONO, ST)	
S304	1-692-901-11	SWITCH, SLIDE (AVLS)	
S305	1-692-898-11	SWITCH, SLIDE (MEGA BASS)	
S306	1-572-922-11	SWITCH, SLIDE (DOLBY NR)	(FX435)
		< TRANSFORMER >	
T1	1-411-206-11	TRANSFORMER, IF (AM)	
T401	1-450-306-11	TRANSFORMER, DC-DC CONVERTER	

MAIN

Ref. No.	Part No.	Description	Remark
		< THERMISTOR >	
TH601	1-810-794-11	THERMISTOR, POSITIVE	
		< VIBRATOR >	
X1	1-760-234-11	DISCRIMINATOR, CERAMIC (10.7MHz)	
		***	
		MISCELLANEOUS *************	
54	1-655-731-11	TUNER FLEXIBLE BOARD	
HP901	1-500-205-11	PLAYBACK HEAD	
M901	1-698-457-11	MOTOR	
		***	
		ACCESSORIES & PACKING MATERIALS *******************************	
	1-504-228-11	HEADPHONE (MDR-013)(FX433:US)	
	1-504-521-11	HEADPHONE (MDR-015)(FX433:E, IT/FX435:US)	
	3-798-139-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, ITALIAN)(AEP, UK, IT, EA)	
	3-798-139-21	MANUAL, INSTRUCTION (ENGLISH)(US)	
	3-798-139-31	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (CND)	
	3-798-139-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, PORTUGUESE)(AEP, UK, IT)	
	3-798-139-51	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE)(E)	
	3-798-139-61	MANUAL, INSTRUCTION (CZECH, HUNGARIAN, POLISH, RUSSIAN)(FX433:EE)	
*	3-910-312-01	CUSHION (EXCEPT US)	
*	3-920-962-01	INDIVIDUAL CARTON (FX433:AEP, UK, IT, EE)	
*	3-920-964-01	INDIVIDUAL CARTON (FX433:CND, E, EA)	
*	3-920-968-01	INDIVIDUAL CARTON (FX435:CND, E, EA)	
*	3-920-970-01	INDIVIDUAL CARTON (FX435:AEP, UK, IT)	
	3-921-966-01	CLIP, BELT	
	8-953-538-90	HEADPHONE MDR-E741//K SET (FX433:CND, AEP, UK, EA, EE/FX435:EXCEPT US)	

Sony Corporation
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